

Ivy Tech State College  
Central Indiana  
1995-1996

putting you  
in tomorrow's  
workforce



B  
U  
L  
L  
E  
T  
I  
N

Digitized by the Internet Archive  
in 2010 with funding from  
Lyrasis Members and Sloan Foundation

<http://www.archive.org/details/ivytechstatecoll9596unse>



1995-1996

One West 26th St.

P.O. Box 1763

Indianapolis, Indiana 46206-1763

Phone: (317) 921-4800

1-800-732-1470

FAX: (317) 921-4753

## *Ivy Tech State College - Central Indiana*

Ivy Tech State College offers degree credit programs, courses, career development and technical certificates, and community service offerings. The College provides open admission, counseling, and placement services for all persons, regardless of race, color, creed, religion, gender, limited English proficiency, national origin, physical or mental handicap, limited English comprehension, age, or veteran status.

### *Disclaimer*

This catalog is intended to supply accurate information to the reader. From time to time, certain information may be changed.

The College may revise any matter described in this catalog at any time without publishing a revised version of the catalog. Information which appears to apply to a particular student should be verified by the Registrar's Office. This publication and its provisions are not in any way a contract between the student and Ivy Tech State College.

Fall 1995

Regional Relations-Central Indiana

Editor/Designer: Lisa Kitchen Butt

Cover Design and Technical Support: Image Design

# TABLE OF CONTENTS

## **General Information**

### **1 Introduction**

### **2 Program Information**

### **5 Admissions Information**

- 5 Admission
- 5 Readmission
- 5 Limited Admission Enrollment
- 6 Success Seminars
- 6 Transferring to the College
- 6 Transferring to other Colleges
- 6 Tech Prep
- 7 Special Needs
- 7 International Students

### **8 Financial Assistance**

### **11 Fee Information/Refund Policy/Registration**

- 11 College Fees
- 11 Additional Expenses
- 11 Payment of Fees
- 11 Miscellaneous Fees
- 12 Registering for Classes
- 12 Dropping and Adding
- 12 Student Withdrawal

### **13 Student Records**

- 13 Dependency Provision

### **14 Academic Information**

- 14 Testing Out of Classes
- 14 Academic Grading
- 14 Grades
- 14 Status Codes
- 16 Academic Standards of Progress
- 16 Academic Problems
- 16 Dean's List
- 17 Commencement
- 17 Attendance

### **18 Student Development/Support Services**

- 18 Computer-Assisted Instructional Lab
- 18 Testing Lab
- 18 Tutoring Lab

- 18 Writing Center
- 18 Career Counseling
- 18 Office of Career and Employment Services
- 19 Learning Resource Center/Library
- 19 College Bookstore
- 19 Child Development Center
- 19 Student Government Association
- 20 Student Organizations
- 20 Alumni Association
- 20 Student Right to Know
- 20 Communicable Disease Policy
- 21 Workplace Violence Policy
- 21 Campus Crime Awareness
- 22 Sexual Harassment Policy
- 23 Drug Policy
- 23 Student Rights/Responsibilities
- 23 College Rules
- 25 Violations
- 26 Student Grievance Policy

### **28 Student Information**

- 28 Accreditation/Approvals
- 28 Nondiscrimination Policy
- 28 Telephone
- 28 Fire
- 28 Tornado
- 28 Lounge/Food Service
- 28 Non-Smoking Policy
- 28 Parking and Housing

### **29 Business and Technology Division**

### **51 Health and Human Services Division**

### **61 General Education and Support Services Division**

### **68 Course Descriptions**

### **104 Ivy Tech Personnel**

- 104 Board of Trustees
- 104 Administrative Staff
- 104 Full-time Faculty

# CALENDAR

## *Fall 1995*

August 14 - 18	Faculty Report
August 21	First day of classes
September 4	Labor Day Holiday
November 21-26	Fall Break
November 27	Classes begin after Break
December 17	Last day of classes
December 18 - January 1	Winter Break

## *Spring 1996*

January 2-5	Faculty Report
January 8	First Day of classes
March 4-10	Spring Break
March 11	Classes begin after Break
April 26	Commencement
May 5	Last day of classes

## *Summer 1996*

May 6-17	Summer Break
May 23	First Day of Classes
May 27	Memorial Day Holiday
July 4	Holiday
August 9	Last Day of Classes

## *Fall 1996-97*

April 19-23	Faculty Report
August 26	First Day of Classes
September 2	Labor Day Holiday
November 26-27	Fall Break
November 28-December 1	Thanksgiving
December 2	Classes Begin After Break
December 22	Last Day of Classes
December 23-January 5	Winter Break

## *Spring 1997-98*

January 6-10	Faculty Report
January 13	First Day of Classes
March 10-16	Spring Break
March 17	Classes Begin After Break
May 2	Commencement
May 10	Last Day of Classes



# INTRODUCTION

In just over a quarter of a century, Ivy Tech State College, formerly known as Indiana Vocational Technical College, has grown from an idea to a thriving postsecondary institution. On June 1, 1995, Ivy Tech adopted the new name to reflect the College's 32-year evolution from a postsecondary vocational school originally designed to provide short-term, job-specific training to a college system with highly sophisticated offerings.

In 1963, the Indiana General Assembly established Ivy Tech State College as Indiana's first statewide vocational technical college by appropriating \$50,000 for its development. Following appointment of a State Board of Trustees, a president was named and the first training program was established in 1965. Later amendments to the enabling legislation authorized the College's present regional structure of 13 administrative centers to provide accessible technical educational opportunities to all Indiana citizens. Thirteen regional boards of trustees were appointed, and 13 regions were chartered between 1966 and 1969.

Ivy Tech State College is a public, statewide, open-access, community-based college. The College's mission is to enable individuals to develop to their fullest potential and to support the economic development of Indiana. Ivy Tech State College prepares residents of Indiana with the general and technical education needed for successful careers or for continuation in further higher education. The College provides courses, certificate and degree programs, counseling and related services, technical assistance, and community service to individuals, communities, and businesses and industries across the state. Ivy Tech State College promotes educational mobility through partnerships with local schools and other higher education institutions.

Ivy Tech - Central Indiana offers instruction in three instructional areas: Business and Technology, Health and Human Services, and General Education.

The College's regional office of Business and Industry Training works closely with Indiana businesses to provide customized training and retraining in response to specific company needs. These training programs are available on campus or in the workplace.

## *Regional History*

Ivy Tech State College--Central Indiana, one of the College's 13 regions, opened its doors in 1966 to serve residents of Marion, Morgan, Hancock, Johnson, Shelby, Boone, Hendricks, and Hamilton counties. In 1966, the College enrolled 367 students in three technical programs; in Fall 1994, the College enrolled 6,050 students in 22 areas of study.

## *Facilities*

The Ivy Tech State College--Central Indiana campus is located north of downtown Indianapolis at One West 26th Street, corner of Fall Creek Parkway and North Meridian Street. The central campus is comprised of the North Meridian Center, Technology Center, and the Child Development Center. In addition, the College holds selected classes in area high schools throughout Marion County and the seven surrounding counties.

## PROGRAM INFORMATION

Ivy Tech State College programs are designed to meet the needs of the student population, accommodating those who wish to enroll in a few classes as well as those who prefer a full program. Credit programs normally culminate in the Associate in Science degree, the Associate in Applied Science degree or the Technical Certificate. The three divisions are Business and Technology, Health and Human Services, and General Education.

Short-term training is available in selected credit courses, in sequences of credit courses, and in custom-designed courses for local business and industry. Also available are contract training programs and non-credit institutional activities, such as seminars, workshops, and conferences.

In addition to program and custom-designed courses, Ivy Tech State College offers basic skills instruction for students who require academic support and/or study skills to assist them in successful completion of a regular program of study. Enrollment in certain basic skills courses is designed to prepare the student for the GED examination.

### ***Associate in Applied Science (AAS) Degree and Associate in Science (AS) Degree Programs***

Associate in Applied Science degree programs prepare students for career mobility within occupational clusters at the technician or technology level. The programs offer education in recognized specialties with emphasis on analysis, synthesis, and evaluation. The program content, which is approximately 75 percent technical and 25 percent general education, provides both depth and breadth in conceptual and manipulative skills. The general education courses, offered in the areas of communications, humanities, mathematics, life and physical sciences, and social sciences, equip students with the life skills they need to be fully functioning, contributing members of society. Some, but not all, AAS degree programs may transfer to four-year institutions. Ask for details in the Admissions Office.

Associate in Science degree programs prepare students for careers and also enable students who have an interest and ability to transfer Ivy Tech State College credits to cooperating four-year institutions. These programs emphasize cognitive skills intended as pre-baccalaureate study and provide courses equivalent to those prescribed in the lower division of the receiving four-year college or university.

### ***Technical Certificate (TC) Programs***

The Technical Certificate programs provide training in conceptual and manipulative skills for specific occupations.

Each program contains a sequence of required courses in a recognized specialty within one of the technologies taught at the College. The program content is designed to develop competency in the comprehension of general and technical skills in that specialty.

### ***Career Development Certificates (CDC)***

Ivy Tech State College provides short-term programs for individuals who desire to develop competencies in a specific area. These programs are less than 32 semester credits in length. Instruction is delivered through methods that include regular courses and specifically-designed courses. Many of these courses are based on a sequence of learning experiences determined by a certifying state or national association or organization. Completion of certain short-term programs qualifies students to sit for certification examinations. The number and types of short-term programs vary.

### ***Business and Industry Training Programs***

Ivy Tech State College offers specialized training services for business and industry. The Office of Business and Industry Training develops custom-designed programs and services to meet the training needs of local businesses. The office works with business and industry, trade unions, and public and community economic development groups to assess training needs and to deliver training when and where it is needed, often in-plant. Call (317) 921-4775 for more information.

### ***General Technical Studies Program***

The General Technical Studies Program provides an option for students who may not be ready to enter a degree program. As such, the program serves primarily as a beginning point for students as they define and meet their educational objectives. It is designed to meet the diverse needs of the students Ivy Tech serves. The program will:

- Provide an opportunity for students to correct skill deficiencies before enrolling in a technical degree program;
- Provide a program for students who have not selected a specific educational or career goal by the time they have entered the college;
- Allow students who are waiting for admission into a selective program to enter the college;
- Provide a directed program of career-oriented educational exploration to encourage an examination of occupational program areas;

- Increase student retention by providing a vehicle which promotes informed choices;
- Provide undecided students the opportunity to pursue coursework which will serve as a foundation for related one- or two-year programs while engaged in career exploration;
- Provide an opportunity for a student to pursue a one-year program of general technical studies.

## **Approved Degree Programs**

### **Associate in Science Degree**

Accounting Technology  
 Administrative Office Technology  
 Associate Degree Nursing  
 Child Development  
 Occupational Therapy Assistant

### **Associate in Applied Science Degree**

Accounting Technology  
 Administrative Office Technology  
     *Legal Specialty*  
     *Administrative Office Specialty*  
 Automotive Technology  
     *Automotive Service Specialty*  
     *ASSET-Ford Motor Company*  
     *ASEP-General Motors*  
     *T-TEN-Toyota*  
 Business Administration  
     *Management Specialty*  
     *Logistics Management Specialty*  
     *Marketing Specialty*  
 Computer Information Systems  
     *Microcomputer Specialty*  
     *Programming Specialty*  
 Design Technology  
     *Architecture Specialty*  
     *Civil Specialty*  
     *Computer Graphic Design Specialty*  
     *Mechanical Specialty*  
 Electronics Technology  
     *Communications Specialty*  
     *Industrial Specialty*  
     *Microwave Systems Specialty*  
 Hospitality Administration  
     *Culinary Arts Specialty*  
     *Hotel/Restaurant Administration Specialty*

*Baking and Pastry Arts Specialty*  
 Human Services Technology  
     *Criminal Justice Specialty*  
     *Gerontology Specialty*  
     *Generalist Specialty*  
     *Substance Abuse Specialty*  
     *Mental Health Specialty*  
 Industrial Technology  
     *Heating/Ventilation/Air Conditioning Specialty*  
     *Industrial Maintenance Specialty*  
 Manufacturing Technology  
     *Computer Aided Design CAD/CAM Specialty*  
     *Computer Integrated Manufacturing (CIM) Specialty*  
 Medical Assistant  
 Paralegal  
 Public Safety Technology  
     *Environmental Care Specialty*  
     *Fire Science Specialty*  
     *Hazardous Materials Specialty*  
     *Public Administration Specialty*  
 Radiologic Technology  
 Respiratory Care Technology  
 Surgical Technology

### **Technical Certificate**

Administrative Office Technology  
     *Medical Specialty*  
     *Administrative Specialty*  
 Child Development  
 Design Technology  
 Industrial Technology  
     *Heating/Ventilation/Air Conditioning Specialty*  
     *Welding*  
 Manufacturing Technology  
     *Computer Numerical (CNC) Specialty*  
 Medical Assistant  
     *Clinical Specialty*  
     *Administrative Specialty*  
     *Pharmacy Technician Specialty*  
 Practical Nursing

### **General Technical Studies**

*Business*  
*Technology*  
*Health and Human Resources*

## ***Weekend College***

Weekend College is Ivy Tech State College's way of providing an educational opportunity to individuals who are unable to attend during regular weekday or evening hours.

Individuals interested in Weekend College include:

1. Individuals whose work and home schedules create a need to attend classes on Friday evenings, Saturdays, or Sunday afternoon;
2. Individuals anticipating a career change;
3. Current students who want to accelerate their academic progress;
4. Individuals interested in enhancing their skills and staying abreast of advancing technology in their fields.

Weekend College offers a wide selection of credit courses and continuing education programs to a diverse group of people.

## ***Basic Skills Advancement Program Services***

Ivy Tech State College offers a Basic Skills Advancement Program to help ensure the success of students in the completion of their educational goals. The College is concerned about the success of its students, and this program is designed to ensure that every student has the opportunity to be successful.

Services provided include diagnostic assessment and evaluation, and career counseling. The need for these services may be identified at the time of admission; however, a student may utilize any or all services upon encountering academic difficulty during a course of study. Professional basic skills advancement instructors and laboratory technicians provide supplemental instruction in the areas of reading, writing, mathematics, science, study skills, computer literacy, and keyboarding.

Special Needs Services provide supportive services to students with special challenges to aid in their achieving academic and employment goals. The services include interpreters for the deaf, adaptations for the hearing impaired, taped books, tutoring services, counseling and liaison with other agencies.

For further information about the College's Basic Skills Advancement Program, contact either the Admissions Office or the General Education and Support Services Division.

## ***Off-Campus Classes***

Ivy Tech State College provides credit courses at a number of off-campus instructional sites.

Ben Davis High School  
1200 North Girls School Road, Indianapolis

Blue River Career Center  
789 St. Joseph Street, Shelbyville

Carmel Junior High School  
300 S. Guilford Ave., Carmel

Greenfield Central High School  
810 North Broadway, Greenfield

Greenwood High School  
615 West Smith Valley Rd., Greenwood

Lebanon High School  
510 Essex Drive, Lebanon

Manual High School  
2405 Madison Ave., Indianapolis

Mooresville High School  
550 N. Indiana, Mooresville

Mt. Vernon High School  
8112 N. 200, Fortville

Noblesville High School  
300 N. 17th Street, Noblesville

Pike High School  
6701 Zionsville Road, Indianapolis

Walker Career Center  
9651 East 21st Street, Indianapolis

# ADMISSIONS INFORMATION

Students who are high school graduates, have a high school equivalency degree (GED), or those who demonstrate "ability to benefit" are eligible for admission to Ivy Tech State College.

To enroll in an Ivy Tech program/specialty:

1. Fill out an Ivy Tech State College application for Admission\*. Mail or hand deliver the completed application to the College.
2. Have your high school and/or college transcripts sent directly to Ivy Tech State College, Registrar's Office. With a GED, the applicant should request an official copy be sent or bring a copy of the original transcript of GED scores to the Office of the Registrar.
3. All applicants are required to attend an ASSET Success Seminar which includes orientation, assessment testing, and advisement.

Some admitted students may be required to participate in pre-technical/basic skills advancement courses. All placements are based on a review of ASSET placement test scores and high school (or GED) and college transcripts.

Pre-technical courses enable the student to develop or strengthen important academic skills by taking prescribed classes. A pre-technical class is designed to enhance the student's academic success and is based on the student's goal, a review of placement test scores, high school and/or college transcripts and an academic advising session.

If you wish to earn an associate degree or technical certificate, you must complete the entire admission process. Acceptance is based on the policy "first-come, first-qualified, first-served."

\*Information required on the application concerning race, age, color, national origin, gender, marital status, or physical disabilities will be used for reporting purposes only. Information gathered on physical disabilities will provide the College information regarding accommodations or adjustments that may be required. This information will be kept confidential.

If you are interested in taking a course only and you meet the course prerequisites (if any), you are ready to enroll.

## Readmission

Should a student's course of study at Ivy Tech State College be interrupted during a semester, an official drop form must be completed or an F grade will be assigned. If a student is withdrawing from classes or not re-enrolling for classes, the student may request readmission at a later date.

This is accomplished by contacting the Admissions and Counseling offices. Information on eligibility for financial assistance will be available to returning students from the Financial Assistance Office.

## Limited Admission Enrollment

Sometimes the number of students admitted and enrolled in programs and/or courses is limited by College resources or facilities—including available lab equipment or the number of available health program clinical work settings. The Admissions Office should be contacted regarding the status of different programs.

### Admission Procedures and Support Documents

For degree-seeking students:

1. A complete student admission data form, which establishes records in the Registrar's Office, is required.
2. Proof of high school graduation or GED completion is normally required for admission into a program leading to a certificate or a degree. The high school graduate or individual who has the GED must request the secondary school or testing center send an official copy of the transcript or GED certification to the Office of the Registrar. Applicants to Associate of Science degrees and Health and Human Services programs must have their high school transcript or GED certification scores on file in the Registrar's Office before the start of the first semester. Applicants for all other programs must have the high school transcript or GED certification scores submitted no later than the end of the first semester of attendance.
3. Students whose high school transcripts are not in English must have their high school transcripts translated into English and verified by an appropriate outside agency. All international students must have their transcripts evaluated and verified by an appropriate outside agency. Please contact the Admissions Office for an international packet.
4. "Home Schooled" students will be required to obtain a GED for admission.
5. The College has counselors available to assist students in selecting a course of study at Ivy Tech State College.

6. The College requires that program-declared students either provide acceptable standardized test scores or participate in the College academic diagnostic testing program.
7. Should a student wish to transfer credits to Ivy Tech State College from another college, the student must have an official copy of the grade transcript forwarded from that institution to Ivy Tech State College. This should be done at the same time as application to the college.
8. The College requires a health examination for certain programs.

### ***Success Seminar***

All applicants for admission to a program who are seeking a certificate or degree at Ivy Tech State College must attend an ASSET Success Seminar. The Success Seminar includes an orientation to the College, an overview of academic skills, academic skills assessment test, and advisement on courses and services needed by students to begin their college careers successfully. Success Seminars are conducted at the College on an arranged basis, at no fee to the student.

The Success Seminar lasts 8 hours. Survey results and an orientation session are given in the afternoon. A sample of the assessment is available from the Admissions and Counseling Office.

The academic skills assessment portion of the Success Seminar can be waived if the applicant has earned a minimum of an Associate Degree at an accredited institution or if they have successfully completed certain college-level English and Math courses. Please check with your Program Advisor or Office of Admissions and Counseling.

For a schedule of the times, call (317) 921-4800.

### ***Transferring to the College***

The College encourages students who have previously attended other recognized colleges and universities, adult education programs and high school vocational technical programs to forward transcripts to Ivy Tech by the midpoint of the first semester of enrollment or re-enrollment for consideration for transfer of credit and/or advanced placement. Students are responsible for providing pertinent course descriptions and/or copies of the college catalog(s) if further documentation is needed to facilitate the review. The College reserves the right to refuse admission or to accept conditionally those students who have been dismissed for disciplinary reasons from other colleges or universities. In respect to transfer credits from a foreign institution, Ivy Tech will look at an evaluation of those courses done by an external evaluation agency/transfer if appropriate.

### ***Transferring to Other Colleges***

It is the right and responsibility of the receiving institution to decide whether to accept credits from another institution. The Associate in Applied Science degree (A.A.S.) and the technical certificate programs offered by Ivy Tech State College are intended to prepare students with the necessary knowledge and skills to enter or advance in the workplace. However, the College has articulation agreements with many four-year institutions which enable students to transfer some or all of their Ivy Tech credits depending upon the program.

The following colleges and universities have an Articulation Agreement with Ivy Tech State College:

Alcorn State University - Lorman, MS  
 Bethune-Cookman College - Daytona Beach, FL  
 Central State University - Wilberforce, OH  
 Delta State University  
 Embry-Riddle Aeronautical University  
 Ferris State University - Big Rapids, MI  
 Indiana Institute of Technology  
 Indiana State University  
 Indiana University-Purdue University at Indianapolis  
 Indiana Wesleyan University  
 Lane College - Jackson, TN  
 Manchester College  
 Martin University  
 Murray State University -Murray, KY  
 Northwood University  
 Oakland City University  
 Prairie View A&M University - Prairie View, TX  
 Purdue University  
 Saint Mary of the Woods College  
 Tri-State University  
 University of Arkansas - Pine Bluff, AR  
 University of Indianapolis

### ***Tech Prep***

Ivy Tech developed a statewide Tech Prep associate degree program in 1993. The purpose of Ivy Tech's Tech Prep program model is to enable Indiana high school students to enter into and complete a postsecondary technical program to learn the skills necessary to succeed in the workforce. This purpose is achieved through three program objectives:

- Provide high school students with the information they need to prepare for college-level technical education, so students can enter directly into a technical program after high school graduation and avoid the need for costly and time-consuming remedial coursework;
- Provide high school students with opportunities for achieving advanced standing, so students who take advantage of this opportunity can complete a technical associate degree program in less than two years of full-time study; and
- Provide opportunities for students to complete an enriched course of study, so qualified students can pursue an advanced technology curriculum.

## *Special Needs*

College programs and facilities are designed to be accessible to students with a documented disability. The college has designated parking and special restroom facilities for the physically challenged. Special Needs Services assists students with a disability, including hearing impairments, physical disability, learning disabilities, and visual impairments. Staff members are available to work with students whose learning or physical disability may impede their progress in their studies at Ivy Tech. The types of services available include: academic, career, and personal counseling; tutorial sessions with a full-time resource instructor; adaptive testing; sign language interpreters for classes and college-sponsored events; supplementary readers and testing services; coordination of taped textbook services; adaptive equipment including telecommunication device for the deaf (TDD), Visual Tech, braille, "talking" calculator, tape recorders, large print reference books, etc. Special Needs Services works with outside agencies as needed to provide additional resources for students.

Any student with a documented disability is urged to contact the Special Needs Office at (317) 921-4983 for help with special challenges as a student at Ivy Tech State College.

## *International Students*

International students must meet the College admission standards and certain other requirements. Students should request an international packet from the Admissions Office, which has all the details: Ivy Tech State College, Admissions Office, One West 26th Street, P.O. Box 1763, Indianapolis, Indiana 46206-1763. ATT: International Counselor.

Note: International students should apply for admission to Ivy Tech State College at least 90 days prior to the beginning of the term they wish to attend.

An international student must also provide proof of adequate financial support for College fees and living expenses for each year while attending the College. Please refer to the international packet.

# FINANCIAL ASSISTANCE

The purpose of Ivy Tech State College's financial assistance program is to provide financial assistance to those qualified students who, without such aid, would be unable to attend college. Ivy Tech State College offers various types of financial aid to students. Students are encouraged to carefully survey the variety of financial aid options available.

- Scholarships and grants are types of gift assistance which do not require repayment.
- Educational student loans are low-interest loans that must be repaid. Interest and repayment generally begin six months after a student ceases at least half-time enrollment.
- Part-time employment provides meaningful employment for the student, also allowing the student to earn money to help defray education expenses.

## ***Financial Assistance Programs -Pell Grant Program***

All Pell Grant recipients must meet student eligibility requirements. Students must apply for the Pell Grant before applying for any other financial assistance. The Pell Grant program makes funds available to eligible students enrolled in a program which leads to a certificate or degree. Pell Grant funds do not have to be repaid.

## ***Supplemental Educational Opportunity Grant Program (SEOG)***

SEOG awards do not have to be paid back and provide aid based on the applicant's need, other aid received, and availability of funds. The student must be Pell eligible.

## ***Federal Work Study Program***

The Federal Work Study Program provides jobs for students interested in earning part of their educational expenses. Students in eligible programs of study may apply. Limited funds are available. The number of work hours per week is determined by the student's (1) financial need; (2) availability for employment; and (3) class schedule and academic performance. Employment is primarily on campus. Contact the Financial Assistance Office at (317) 921-4777.

## ***Scholarships***

Scholarships, funded by private contributions,

provide assistance to students in certain programs. The Financial Assistance Office considers all applicants for all available funds. Some scholarships are based on grade point average only. Some are based on both merit and need. Please ask your instructor, program chair, and/or the Financial Assistance Office for information on specific program scholarships.

## ***Loan Program***

Educational loans are one choice for Ivy Tech State College students. Before a loan is processed, federal law requires the student to complete an application for the Pell Grant. Students must receive Ivy Tech State College loan counseling before applying for a loan. All other types of assistance will be considered before the Financial Assistance Office will process a loan application.

## ***Veteran's Benefits***

Students who served in the Armed Forces may be eligible for Veteran's benefits. Students should contact the Veteran's Affairs Office Counselor for more information at (317) 921-4700.

## ***Students' Financial Rights and Responsibilities***

Financial aid, as a general rule, can only be awarded to students who are accepted into degree or certain certificate-granting programs; however, part-time students may be eligible.

Students who receive financial assistance are expected to keep themselves informed concerning various terms and conditions of receiving aid, especially those concerning satisfactory progress. Applications for aid in future years should be submitted in a timely manner, usually between January 1 and March 1 of each year to ensure additional aid for Indiana. Some aid programs are administered by the College Financial Aid Office under the policies and guidelines established by state and federal government, other agencies, or outside organizations. A few programs may be available on a regional basis only. Eligibility for most financial aid at Ivy Tech State College is based upon the student's demonstrated financial need. To qualify for any form of financial aid, the student must complete the Free Application for Federal Student Aid (FAFSA) and the Ivy Tech Financial Aid form each year. He/she must also meet additional eligibility requirements (i.e., citizenship or permanent resident status, draft compliance, satisfactory academic progress). Students receiving financial aid may be

eligible for Pro Rate or Title IV refunds in the event that he/she withdraws from all courses.

Students who drop or withdraw from class must see the Financial Assistance Office. Withdrawing from all classes or non-attendance of the classes may have a negative impact on funding from the Pell Program.

Additional information concerning federal, state, and college financial aid and refund rules are available in the financial aid check-list, in the Financial Assistance Office and in the Admissions and Counseling Office.

### ***Financial Assistance Checklist***

- 1) Complete the Ivy Tech State College Financial Assistance Information Form. It is best to do this as early as possible.
2. Pick up the Free Application for Federal Student Aid (FAFSA) from your high school counselor or the Admissions Office. Complete the application and mail to the Federal Student Aid Programs by March 1, 1996, to be eligible for State of Indiana Aid, or May 2, 1996, to be eligible for Federal Pell grants. You will receive a 1996-97 Student Aid Report in about three weeks.
3. If you are a new student, apply for admission early. For further information, contact Student Affairs. An application for admission must be filled out to qualify for financial aid.
4. Request a financial aid transcript from each college or university that you have attended. This document must be on file before any financial aid can be applied. We can request them for you only with complete addresses and attendance dates.

### ***1996-97 Financial Aid Follow-Up***

1. Return the 1996-97 Student Aid Report to the Ivy Tech Financial Assistance Office as soon as you receive it in the mail. Make sure you read and complete it carefully. It may ask you to provide additional documents.
2. Read carefully all instructions before completing and mailing your applications.
3. Keep readily available all taxable and non-taxable income documents for both yourself and your spouse; and your parents, if you are a dependent student. This includes signed 1995 tax forms, W2s, etc. You may be asked to submit certain income documentation for verification purposes.
4. Create a file folder marked "Financial Aid" so that you will have easy access to all forms, letters, award status, and related documents when you have questions.

5. If you drop or add classes, your award may change.
6. Finally, if you have any questions, please do not guess! Schedule an appointment. An advisor will be available to assist you in understanding the process.

Remember, to receive financial aid, it is best to apply early. Applications must be re-submitted in January of each year.

### ***Financial Aid Appeals***

The following steps are recommended to students who desire to appeal a financial assistance decision:

1. Schedule a personal conference with the Manager of Financial Assistance to discuss and resolve the issue.
2. If Step 1 is unsatisfactory, schedule a consultation with the Director of Student Affairs.
3. If Step 2 is unsatisfactory, file a financial appeal with the Financial Assistance Appeals Committee.

Students who wish to appeal financial probation or termination should write their appeal to the Financial Assistance Manager. Decisions on probation/termination appeals will be determined by the Financial Assistance Appeals Committee.

### ***Satisfactory Progress for Financial Assistance***

In order to maintain Satisfactory Progress, a student must meet the following standards:

#### ***Qualitative Standards of Progress***

A student must be in good academic standing by earning at least a 2.00 grade point average (GPA) after attempting 15 or more program hours. Students on Academic Probation must raise their cumulative GPA to 2.00, or must receive a 2.00 term GPA (taking six quality hours\* or more), by the end of the probationary term, or financial assistance will be denied.

\*quality hours=attempted credits

#### ***Quantitative Standards of Progress***

Quantitative Standards of Satisfactory Progress are measured by (A) the number of credits completed each term, and (B) program completion within the maximum time frame.

Both requirements, as described below, must be met in order to meet Quantitative Standards of progress.

- A. By the number of credits completed each term . . .

Completion of credits is defined as earning one of the following grades: A, B, C, or D.

Each term, in order to maintain Satisfactory Progress, a student is required to complete the number of credit hours indicated for his/her enrollment status.

A student who does not earn the minimum credit hours required for his/her enrollment status at the end of his/her first term or at the end of any term immediately following a term of Satisfactory Progress, shall be placed on Academic Probation for the next term. During this probation term, financial assistance eligibility may be continued. However, a student who does not remove his/her probation status by the end of this first probationary term shall be considered as failing to make Satisfactory Progress. Unless he/she successfully appeals this determination, he/she shall be ineligible for financial assistance for the next term of enrollment.

#### Required Term Enrollment

Enrollment Status: The following designations are used to determine a student's term enrollment status:

Full-Time: 12 + semester credit hours

3/4 Time: 9-11 semester hours

1/2-Time: 6-8 semester hours

Less than 1/2 Time: 1-5 semester hours

Required Term Enrollment Status For Financial Assistance: Each term, the aid recipient must complete at least the minimum number of credit hours depending on his/her enrollment status for that term. This includes Basic Skills Advancement courses.

<u>Enrollment Status</u>	<u>Minimum Required Number of Completed Credits per Term</u>
Full-Time:	9
3/4 Time:	6
1/2 Time:	4
Less than 1/2 Time:	All Hours Attempted

- B. By program completion within the maximum time frame allowed . . .

A student is expected to complete all requirements for an Associate Degree or Technical Certificate within the maximum allowable time frame. Student maximum time is reached after he/she has attempted (enrolled) 150% of the number of credits that the Technical Certificate or Associate Degree program requires.

If a student reaches the maximum number of credit hours attempted, and the student has not completed his/her declared course of study, suspension of financial assistance will occur regardless of changes from one course of study to another. Reinstatement of aid would take place only if the student completed a course of study and subsequently enrolled in a course of study leading to another degree or certificate. In cases where

a student is attempting to complete a subsequent course of study, all hours previously earned which apply toward that subsequent course of study will be counted toward the maximum time frame for that degree or certificate.

### ***Financial Assistance for Basic Skills Advancement Courses***

Financial assistance may be granted for up to 30 credit hours of enrollment in Basic Skills Advancement courses. Educationally-disadvantaged students accepted in an eligible program will be able to enroll in Basic Skills Advancement courses (not counted toward the TC, AS, or AAS degree) in order to ensure their future academic good standing.

Financial Assistance will be denied:

1. In those terms following completion of the total maximum time frames. Total maximum time frames include all terms of enrollment during which students are not making satisfactory progress and/or are not receiving financial assistance.
2. In any term(s) within the maximum time frame following the first probation term in which satisfactory progress was not achieved.

### ***Regaining Eligibility for Financial Assistance Standards of Progress***

Students who are denied financial assistance as a result of failure to maintain satisfactory progress will regain their eligibility if any of the following conditions are met:

1. Enroll at least half-time at their own expense and receive at least a 2.00 term GPA while meeting the Quantitative Standards of Progress. The student will regain financial assistance eligibility and will be on probationary status the following term.
2. Enroll at their own expense and raise their cumulative GPA to a 2.00 or higher while meeting the Quantitative Standards of Progress. The student will regain financial assistance eligibility and will be in good standing the following term.
3. Students who have been terminated from financial assistance, who are within their maximum time frame, and return to Ivy Tech State College after an absence of 12 or more consecutive months will be on Probationary Status during their first term of re-enrollment but may receive financial assistance.
4. Students who have been suspended from financial assistance more than once, who are within maximum time frame, and return to Ivy Tech State College after an absence of 60 or more consecutive months will be on Probationary Status during their first term of re-enrollment but may receive financial assistance.

Note: Maximum Time Frame suspension cannot be reversed through the appeals process.

## College Fees

The College seeks to provide quality education at the lowest possible cost. General fees are based on the number of credit hours for which the student is registered. Additional costs include Divisional fees and special fees pertaining to particular courses or College activities. Out-of-state students pay an additional fee per credit hour.

All student fees are to be paid at the time of registration. Students having fees to be paid by a third party must have fee payment authorization before registering. Fees may be paid by cash, check, money order, MasterCard or VISA.

Late registration fees are charged to students who register the first day of class or after. A \$25.00 fee will be charged for all non-sufficient funds and stopped-payment checks.

## Additional Expenses

The following additional expenses may apply, depending upon the program of study:

**BOOKS:** All students are expected to purchase the textbooks for their respective programs. The cost of books will vary according to classes taken.

**TOOLS:** The College furnishes major equipment items for instruction; however, in many programs or courses students must furnish additional hand tools and equipment.

**UNIFORMS AND OTHER SPECIAL EQUIPMENT:** Several programs require students to furnish uniforms and special safety equipment.

**TRAVEL:** Transportation costs to and from the College clinical or practicum sites vary according to the distance and the type of transportation used.

For a current schedule of fees and further information, contact the Admissions Office.

## Payment of Fees

All enrolled students must pay all applicable fees. A student is officially registered and allowed to attend classes only when all fees have been paid.

## Instructional Fees\*

Resident of Indiana: \$60.30 per credit

Non-Resident: \$109.75 per credit

## Miscellaneous Fees\*

Application fee: No charge

Credit by examination fee (per course): \$10.00 per credit

Late registration (first day of classes): \$10.00

Check fee (for check returned by bank): \$25.00

Student I.D. card: No charge

Transcript fee: No charge for first transcript  
(transcript fee after first transcript): \$ 1.00

Parking: No charge

Deferment Charge: \$15.00

\* subject to change by the State Board of Trustees

## Refund Policy

Students choosing to drop or withdraw from a course or courses must notify the College in writing using the Drop/Add Form. The fee refund for voluntary withdrawal from a class, when applicable, will be processed only after the student files a College Drop/Add form or withdrawal form with the Registrar's Office.

The College will refund students' assessed fees, with the exception of the late registration and deferment fee, on a schedule computed as follows for a (fall, spring) semester:

From registration to end of first week of semester:  
100% refund

From registration to end of second week of semester:  
75% refund

From registration to end of third week of semester:  
50% refund

From registration to end of fourth week of semester:  
25% refund

After fourth week of semester: No refund.

- The effective date for calculating the fee refund is the date of written notification.
- Certain other fees may be refundable. Further details are available from the Bursar's Office.
- All refunds will be issued by check and mailed to the address shown on the student registration form.
- Cancellation of credit courses by the College will result in total refund of fees collected for those courses.
- Please allow 10 (ten) working days for refunds to be processed.

## ***Registering for Courses***

The registration process includes financial aid and program counseling, selection of courses, and payment of fees. Newly-admitted students will be notified when to register for their first semester classes.

Specific days are set aside for registration before the beginning of each semester. Students should seek assistance in course selection from faculty advisors or counselors through the Counseling Office before registering for classes.

The Counseling Office can supply information concerning registration.

NOTE: STUDENTS ARE REGISTERED ONLY WHEN FEES HAVE BEEN PAID.

## ***Open/Late Registration***

Please see class schedule for course reservation days and registration times. Registration on or after the first day of classes each term is considered late. Students may register after the first week of classes with the permission of the instructor; however, a late registration fee is assessed beginning the first day of classes. For further information, students are asked to contact the Admissions and Counseling offices.

## ***Dropping and Adding***

Courses may be dropped or added during the first two weeks of the regular semester. Students may be eligible for a full or partial refund of the assessed fees for courses dropped during the first four weeks of the semester. Students changing, adding or withdrawing from a class must notify the College in writing using the drop-and-add form. This form must be presented to the Registrar's Office.

## ***Student Withdrawal***

From the beginning of the second week to the end of the week marking the completion of 75 percent of the course, a student may withdraw from a course by filing a completed withdrawal form at the Registrar's Office and discontinuing class attendance. Students may be eligible for a full or partial refund of the assessed fees—see Refund Policy. Records will then indicate status of “W” in place of a grade for that course. A student who discontinues class attendance after the last day to withdraw with a “W” will receive a grade commensurate with the course requirements.

## *Student Records*

An educational record is maintained for each student who is, or has been, enrolled at Ivy Tech State College-Central Indiana. In accordance with the Family Educational Rights and Privacy Act of 1974, as amended, the following student rights are covered by the Act and afforded to all students at Ivy Tech State College-Central Indiana:

1. The right to inspect and review information contained in the student's educational records.
2. The right to challenge the contents of their educational records.
3. The right to a hearing if the outcome of the challenge is unsatisfactory.
4. The right to submit an explanatory statement for inclusion in the educational record if the outcome of the hearing is unsatisfactory.
5. The right to prevent disclosure, with certain exceptions, of personally identifiable information.
6. The right to secure a copy of the institutional policy.
7. The right to file complaints with the U.S. Department of Education concerning alleged failures by Ivy Tech State College-Central Indiana to comply with the provisions of the Act.

Each of these rights, with any limitations or exceptions, is explained in the Institutional Policy Statement, a copy of which may be obtained in the Admissions Office.

At the discretion of College officials, directory information may be provided in accordance with the provisions of the Act without the written consent of the student unless the student requests, in writing, that such information not be disclosed (see below). These items are designated as directory information and may be released for any reason at the discretion of Ivy Tech State College-Central Indiana unless a request for nondisclosure is on file:

1. Name, address, telephone number, dates of attendance.
2. Previous institution(s) attended, major field of study, awards, honors, degree conferred.

3. Past and present participation in officially recognized sports and activities, physical factors of athletes (height and weight), date and place of birth.

Students may request the withholding of directory information by submitting their request to the Office of the Registrar. The request form must be completed for each term of enrollment. Failure on the part of a student to request the withholding of specific categories of directory information indicates the student's approval of disclosure.

## *Dependency Provision*

Ivy Tech State College-Central Indiana reserves the right, as allowed under the Federal Educational Rights and Privacy Act of 1974, to disclose educational records or components thereof, without written consent, to parents of dependent students as defined according to the Internal Revenue Code of 1954- Section 154 (as amended).

However, all Ivy Tech State College-Central Indiana students will be assumed to be "independent." A certified copy of the parents' most recent Federal Income Tax Form establishing the student's dependency status shall be required before any educational records or components thereof will be released to the parent of any student. The student will be required to sign a Release of Information Form.

## Testing Out of Courses

Policies regarding testing out of courses vary from program to program. A student who wishes to test out of a course should contact the program advisor. A \$10.00-per-credit-hour fee will be charged for the test. The general guidelines for test-out are as follows:

1. Test-out examinations should be taken before the student registers for the course for which the test out is attempted.
2. Test-out examinations are normally completed at one sitting (unless the test is offered in two parts, i.e., lab and written exams).
3. Test-out credits are not included in credit computations for financial aid programs or student grade point averages.

## Academic Grading

The academic grading system has both grades and status codes. In certain instances, a status code will appear on the student's record in place of a grade. Status represents a condition to which no letter grade can be assigned. Grades reflect the quality of performance and level of competency achieved by students who complete a course. Instructors determine and assign grades and status based on objective appraisal and evaluation of students' performances. Semester grade reports are sent to each student.

## Grades

The quality of student performance or competency level, as determined by the instructor at the completion of a course, is indicated by a letter grade of A, B, C, D, or F. Each designation has a numerical value per credit hour, referred to as Quality Points/Per Credit. The meaning and quality point value per credit hour of each letter grade is shown in the table that follows:

Grade	Description	Quality Points
A	Excellent	4
B	Good	3
C	Average	2
D	Minimum Passing	1
F	Failure	0

While Basic Skills Advancement courses are assigned these grade designations, no quality points or quality hours are generated.

## Status Codes

Status codes describe the state or condition of a course appearing on the student's record that has not received a grade. Status code indications carry no grade points. The types of status codes and the symbols used to indicate them:

Grade	Description	Quality Points
I	Incomplete	0
AU+	Audit	0
S	Satisfactory	0
U	Unsatisfactory	0
V	Verified Competency	0
NW	No-Show Withdrawal	0
W	Withdrawal	0

+ Must be declared at time of registration and cannot be used to complete financial assistance eligibility.

These non-grades are used for the following reasons:

### I- Incomplete

"I" designations are received by students who have actively pursued a course and are doing passing work at the end of the course, but who have not completed the final examination and/or other specific course assignments. To remove an "I" designation, a student must meet with the instructor to make arrangements to complete the course work. The instructor must submit the grade within 31 calendar days after the beginning of the term following the term the student received the "I" designation. If an "I" status code is not converted within the aforementioned time, an "F" will be assigned. Students who have an "I" status on their record may not register in that specific course. However, if the "I" is changed to an "F" the student may then register only once more for that course in order to earn a passing grade.

### AU-Audit

Audit (AU) status indicates enrollment in a course for no grade or credit. The fees for audited courses are the same as those for courses taken for credit. Audit status must be declared no later than the end of the first week of classes with approval of the Instructor or Program Chair.

### NW-No-Show Withdrawal

"NW" will be used for "No-Show" Withdrawals.

Instructors shall authorize the Registrar to withdraw a student from any course for which the student did not report to the class for the first two weeks of the term and failed to notify the instructor of intention to attend. This administrative action will be reflected on the official class list.

Refunds will not be processed. A petition for a refund, with documentation for extenuating circumstances, may be filed at the Bursar's Office. Students can petition to be reinstated by receiving the approval of the instructor and completing a course change request form to add the classes(s) in question.

#### **W-Withdrawal**

A "W" status code will be used for student and academic withdrawals. When students find it necessary to withdraw from a course(s), they must give formal notification to the Registrar by completing a drop form. Student Withdrawal (W) is a terminal status, referring to voluntary student withdrawal by a student beginning at the start of the second week of the course up to the end of the week marking the completion of 75 percent of the course.

After 75 percent of the term has elapsed, a student may withdraw only if documented extenuating circumstances are submitted to, and approved by, the Dean of Instructional Affairs or his/her designee. The "W" status code designation will be entered on the student's academic records.

Instructors may also recommend that a student receive a "W" status code for student nonattendance in class or student disciplinary reasons, with final approval from the Chief Administrative Officer or his/her designee.

#### **S-Satisfactory**

The "S" indicates satisfactory completion of course work in situations where a status of either satisfactory or unsatisfactory (pass/fail) has been arranged by prior agreement.

Although no grade is assigned, credit is earned. Designation of "S" will not count toward degree and certificate graduation requirements.

#### **U-Unsatisfactory**

The "U" indicates unsatisfactory completion of course work in situations where a status of either satisfactory or unsatisfactory (pass/fail) has been arranged by prior agreement by the Dean of Instructional Affairs or his/ her designee. Requests for this type of grading-U-can only be made for non-program related courses and must be declared at time of registration. The "U" differs from an "F" in that quality points are not computed.

#### **V-Verified Competency**

The "V" indicates satisfactory completion of course work in situations such as test-out credit for experience or training, or College Level Examination Program (CLEP) . Credit gained through this method may be used to satisfy degree requirements. This status is approved by the Dean of Instructional Affairs upon recommendation of a faculty advisor, following completion of necessary verification and documentation of competency.

## **Transfer Credit**

Students can receive credit for courses transferred to Ivy Tech State College-Central Indiana. Transfer credit is assigned following an evaluation of equivalence/relevance and is authorized providing the credits were earned with grades of A, B, or C, from a regionally accredited institution, and are not over 10 years old. These credits will be included in earned hours and will appear at the beginning of the student's transcript. Although counted toward graduation, these credits are not used to calculate cumulative GPA. Final authority for Transfer Credit is with the Dean of Instructional Affairs, upon recommendation of the Department/Program head or Registrar.

## **Credit Hours**

Credit is described in semester hours (the number of credits taken per semester). The number of credits is determined by the demands of the course, course work and by the number of contact hours-the hours actually spent in the classroom or laboratory.

## **Credit Hours/Load**

A credit hour represents at least one hour of lecture, three hours of laboratory or three hours of clinical instruction per week for the semester. A three-credit-hour lecture course, for example, meets 48 hours during the semester (3 X 16) weeks. An average full-time class load per semester in most programs consists of 12-15 credit hours. To take a class load more than 17 credit hours, a student must have the approval of the Dean of Instructional Affairs or his/her designee.

## **Enrollment Status**

Enrollment status is determined by the total semester credits being taken:

Full-time: 12 or more credits per semester

3/4 time: 9-11 credits per semester

1/2 time: 6-8 credits per semester

Less than 1/2 time: 1-5 credits per semester

A first-year student, by definition, is one who has completed fewer than 30 semester credit hours; a second-year student is one who has completed 30 or more semester credit hours.

## **Quality Points**

Quality points are numerical values indicating the quality of student performance in credit courses: A=4; B=3; C=2; D=1; F=0. The quality points earned for a course equal the quality point value times the number of credits.

A student who earns an A in a 4-credit course earns 16 quality points: the quality point value (4) X the number of credits (4) = total quality points (16).

## ***Grade Point Averages***

The GPA is calculated by dividing quality points by quality hours. Quality Hours include all nonbasic skills advancement courses graded A-F

Earned Hours include all credits that can be applied toward a degree objective. Attempted Hours include all formally enrolled hours.

All courses except skills advancement courses are included in the GPA.

## ***Improving a Grade***

Students, with the approval of faculty advisors, may attempt to improve D or F grades by repeating courses (allowable once in most programs). Financial Assistance recipients, however, should review their situations carefully since payment for repeated courses can be disallowed. Permanent student records contain complete files on all activity. The student's grade point average will reflect the highest grade earned.

## ***Petition for Course Exclusion***

Under extenuating circumstances, a student may petition the Academic Status Committee to exclude semester hours of course work statistics from the cumulative GPA calculation. Course statistics that are excluded from the cumulative GPA calculation as a result of a petition will not be counted as earned and cannot be used to satisfy requirements for degree-declared students. Petition forms may be obtained from the Registrar's Office.

## ***Academic Standards of Progress***

Note: This section applies to the College's academic standards of progress. Students with financial assistance should read the financial assistance section that explains that required standards of progress, along with grades, include term progress and maximum time frame.

Ivy Tech State College-Central Indiana has established this Policy for Academic Standards and Appeal of Standards of Progress.

1. A student who has declared a degree or certificate objective and has 15 or more cumulative quality hours must maintain a 2.00 minimum cumulative GPA to be considered in satisfactory academic standing.
2. A student who fails to maintain satisfactory academic progress will be subject to a series of

intervention activities and related restrictions until such time as he/she restores satisfactory progress or is dismissed as a degree/certificate seeking student due to repeated unsatisfactory progress. The intervention strategies and restrictions could include, but are limited to: (1) reduced courseload, (2) required counseling sessions, (3) enrollment in Basic Skills Advancement courses, and/or (4) disqualification for graduation.

3. A student who is dismissed for unsatisfactory academic progress faces one term of non-enrollment as a certificate or degree/declared student prior to resuming progress toward that certificate or degree, at which time re-enrollment is allowed on a probationary status.
4. A student who is dismissed twice for unsatisfactory academic progress will be terminated for up to five years as a degree or certificate-declared student unless he/she chooses to participate in an extensive Basic Skills Advancement program.
5. Dismissal from one campus constitutes dismissal from the College. Petition for readmission must be initiated at the site where dismissal occurred via the Academic Status Committee.
6. Satisfactory academic progress is restored when a student successfully earns at least six credit hours and re-establishes a 2.00 cumulative grade point average.

## ***Academic Problems***

If a student has a problem with a grade, he/she should discuss it with the instructor. If the problem cannot be resolved then the student must consult the Divisional Chair. After discussion with a Student Affairs Manager or Divisional Chair, if the matter is still not resolved, the student should contact the Dean of Instructional Affairs. The student may be directed to follow the academic appeals process if the student still does not agree with the solution.

## ***Dean's List***

The Dean's List, prepared and published each semester, gives recognition to students who achieve a minimum 3.50 grade point average or higher with no D or F grades while earning 12 or more credits during the Fall and Spring semesters or greater than eight credit hours for the summer session. The Dean's List is posted on the bulletin boards in the North Meridian Center and the Technology Center. The Dean's List is released to the press after the completion of each semester.

## ***Commencement***

The Associate in Science degree, the Associate in Applied Science degree, or the Technical Certificate is awarded by the College to students who meet graduation and certification eligibility requirements. Commencement ceremonies are held each spring. Graduating students are charged a fee to cover the cost of the ceremonial cap and gown.

A student is considered eligible for graduation when the requirements for graduation or certification have been fulfilled in the selected program. Each student entering the final semester prior to graduation must complete an Application for Graduation form. The application will be certified by the student's program advisor and forwarded to the Registrar's Office, where the appropriate diploma will be prepared.

To graduate with the Associate in Science Degree, Associate in Applied Science Degree or Technical Certificate students must:

1. Successfully complete all courses within certification requirements with a cumulative grade point index of at least 2.0.
2. Successful completion of the required number of credits.
3. Completion of at least 15 degree credits as a regular student of Ivy Tech, and not through test-out or other means of advanced placement.
4. Satisfaction of all financial obligations due the College.
5. Satisfaction of program accreditation standards that may have additional requirements.

## ***Attendance***

Regular attendance is expected at scheduled class meetings or other activities assigned as part of a course of instruction. Attendance records are kept by instructors.

# STUDENT DEVELOPMENT/SUPPORT SERVICES

## *Student Academic Support Services*

The Student Academic Support Services (SASS) at Ivy Tech State College-Central Indiana offers a variety of services to Ivy Tech students. Following is a brief description of services and operation hours during the Fall and Spring Semesters. Summer hours may vary. Students with academic needs are encouraged to call (317) 921-4319 or (317) 921-4972.

### *Computer Assisted Instruction Lab (CAI)*

The CAI Lab offers a variety of services to Ivy Tech students through computer use. Students may visit the lab and utilize the following educational software: ESL, math, developmental science, reading, study skills, and writing.

The CAI Lab hours are 8:00 a.m. to 8:30 p.m., Monday through Thursday; and Friday, 8:00 a.m. to 12 noon. The Center is located in Rooms 252A, 252B, 248, North Meridian Center.

### *Testing Lab*

Students who miss tests or need to retake tests may, with approval from the instructor, visit the Testing Lab.

The Testing Lab hours are 9:00 a.m. to 7:30 p.m., Monday through Thursday; and Friday, 8:00 a.m. to 12 noon. The Center is located in Room 255A, North Meridian Center.

### *Tutoring Lab*

Students have the opportunity to work with professional tutors in math, reading, chemistry, and anatomy and physiology.

The Tutoring Lab hours are 8:00 a.m. to 8:30 p.m., Monday through Thursday; and Friday, 8:00 a.m. to 12 noon. The Center is located in Room 258, North Meridian Center.

### *Writing Center*

Students have the opportunity for one-on-one tutoring. The Writing Center helps students generate ideas for papers, helps students with their designated deficiencies and provides feedback and suggestions.

The Writing Center hours are 8:00 a.m. to 12 noon and 1:00 p.m. to 5:00 p.m., Monday through Thursday; and Friday, 8:00 a.m. to 12 noon. The Center is located in Room 258A, North Meridian Center.

## *Career Counseling*

The Offices of Admissions, Counseling, and Employment and Career Services offer career counseling to all interested students. Students may obtain individual counseling and/or assessment to assist them in identifying their abilities or occupational interests. Counseling and assessment are also helpful in developing realistic education and career plans through use of occupational outlook data.

In addition to the services offered by the Counseling Office, the College utilizes a faculty advisor system. On admission, each degree student is assigned a faculty advisor whose purpose is to:

1. Assist the student in course selection and program planning;
2. Guide the student in meeting the requirements for graduation as prescribed by the College;
3. Ensure that appropriate technical and general education electives are included in the chosen course of study.

## *Office of Career and Employment Services*

The Office of Employment and Career Services assists registered graduates and enrolled students of the College in career development, student employment, and resume assistance. The Employment and Career Services staff and program advisors coordinate efforts to refer qualified candidates to appropriate employment opportunities.

The Employment and Career Services philosophy is "helping students/graduates to optimize the employment process and assisting them in making a smooth transition into the world of work."

The Office of Employment and Career Services offers a full range of services which includes but is not limited to the following:

1. Individual employment counseling and career assistance;
2. On-campus recruitment with employers from business and industry;
3. Job Search/Interviewing and Resume Writing Workshops;
4. Classroom presentations;
5. Annual Job Fair;
6. Resume referral: Over 5,000 jobs are listed annually;
7. Credential files and references: Maintained on all

registered graduates and undergraduates for job matching and resume referral purposes;

8. Various computerized services offered in the Office of Employment and Career Services: Resumes by Ralph, State Employment Services (JSMS), KiNexus (candidate registration process), Choices and Passport To Your Future (career exploration software packages);
9. Resource Center: Includes career information, company literature, annual reports, job vacancy notices, application forms, information on four-year colleges, and free job search booklets and handouts.

Students are encouraged to register early in their college careers and take full advantage of opportunities available to them from the Office of Employment and Career Services.

### ***Learning Resource Center/Library***

The Learning Resource Center's hours are 8:00 a.m. to 9:00 p.m., Monday through Thursday; Friday, 8:00 a.m. to 4:30 p.m.; and Saturday 9:00 a.m. to 1:00 p.m. Summer hours may vary. The Center is located on the fourth floor of the North Meridian Center.

The Ivy Tech State College Learning Resource Center (LRC) houses Library Services, Audio Visual Services, and Distance Learning Services. The Library has a collection of print, non-print, and automated on-line materials suited to the objectives and programs of the College. Library resources include: the general book collection, reference books, periodicals, pamphlets, audiovisual materials, CD-ROM journal indexes and full-text databases. The Library offers access to other library collections through interlibrary loan networks.

The Library's book collection has over 13,000 books arranged by the Library of Congress classification system. The Library subscribes to 400 periodicals and CD Rom titles.

Books may be checked out for two weeks and renewed for later weeks if they are not needed by others. To check out books and other materials from the Library, students must use an Ivy Tech library card which is issued after verification of registration. The Library sends notices of overdue books and fines. The fine is five cents per day after the due date (Saturdays, Sundays and Holidays are excluded).

The Library's Audio Visual Department contains all of the Library's software, listening stations, and viewing stations.

Software and equipment may be scheduled for class presentations by students.

### ***College Bookstore***

The College Bookstore's hours are 8:00 a.m. to 5:30

p.m., Monday through Thursday; and Friday, 8:00 a.m. to 4:30 p.m. The Bookstore is located on the fourth floor of the North Meridian Center. Cash, personal checks with proper ID, Visa, and MasterCard are accepted for payment.

Refunds on books are limited. To receive a full refund for textbooks, the following conditions must be met:

1. All textbooks must be returned in new, unmarked mint condition with the cash register receipt.
2. All textbooks must be returned within 3 weeks of the date the textbooks were purchased.

A 75% refund will be given for textbooks purchased new that are not in new, resalable condition. This includes any markings, stains, or writing in the book (including your name), or any visible binding or cover damage. No refunds are allowed on any supplies/clothing.

### ***Child Development Center***

Ivy Tech State College-Central Indiana has an on-campus Child Development Center to meet the child care needs of adult students, College staff and faculty, and locally-employed parents and guardians. This licensed center also provides on-site training opportunities for practicum students in the Child Development and other Health and Human Services programs. The model facility is licensed to serve 60 children, ages 2 to 12, from 6:30 a.m. to 10:00 p.m., Monday through Thursday and until 6:00 p.m. on Friday. Note: Hours could vary, depending upon enrollment. The Center is open to visitors interested in either the Child Development Program or the Child Development Center services except during naptime, which is 12:30 to 2:30 p.m. daily. Visitors must register with the center manager upon arrival.

### ***Student Government Association (SGA)***

Students in each region are encouraged to participate in student government through membership in the Student Government Association. The SGA is the representative governing body of the students and is regulated by the College's rules, policies, and regulations. The SGA is composed of representatives and officers that oversee all clubs and organizations. Student senators and representatives are elected or selected according to the by-laws of each regional Student Senate constitution and serve as stated in those by-laws.

The student body membership may consist of senators of the first-year class, the second-year class, each program area, and an advisor as established in the by-laws.

The SGA was established by students to encourage participation in student government and to promote College spirit and recognition. The SGA exercises the authority, unless otherwise delegated, to legislate on student matters, subject to the approval of appropriate College administrative offices.

The constitutions of all student organizations must be approved by a quorum of the SGA, consisting of a simple majority of the total membership and one staff advisor, or as otherwise stated in the by-laws. The functions of the SGA include:

1. Communication of bona fide concerns of the student body and suggestions for improvement to appropriate College officials.
2. Approval of those student organizations deemed beneficial to student life and worthy of being a part of the College.
3. Assurance that copies of the constitution, by-laws, and statement of purpose and objectives of each recognized student organization are on file in the Counseling Office.
4. Referral of student grievances concerning disciplinary matters or student status to appropriate College officials.
5. Planning and conducting of all appropriate extracurricular student activities.
6. Submission of student activity budgets for review and approval by the regional administration.

### ***Student Organizations***

Current clubs and organizations include:

Administrative Office Assistants

Alumni Association

Amateur Radio Club

Hospitality-Restaurant Management Student  
Development Committee

Human Services Club

Phi Theta Kappa (PTK)

Multi-Cultural Society

National Issues Forum

Student Paralegal Association

Student Government Association

These clubs and organizations provide opportunities for leadership training and community service, promote an intellectual climate for an interchange of ideas and ideals, and foster the desire for continued education. Certain criteria may apply to some clubs. Phi Theta Kappa, for example, requires applicants for initiation to have completed at least 12 semester hours with at least a 3.5 GPA.

### ***Alumni Association***

Membership in the Ivy Tech State College Alumni Association is open to current students. Others eligible for membership include students who have earned a certificate or degree, former students, current and former faculty and staff, and trustees.

For information on Alumni Association activities, call (317) 921-4312.

### ***College Professional and Trade Societies***

Student chapters of various professional and trade societies will be formed in the same manner as other student organizations and are subject to the same requirements.

### ***Student Right-To-Know***

Ivy Tech State College-Central Indiana follows the Student Right-to-Know and Campus Security Act, Public Law 101-542, as amended by the Higher Education Technical Amendments of 1991, Public Law 102-26. Required information is available to prospective and current students through the Admissions Office.

### ***Communicable Disease Policy***

The Communicable Disease Policy of Ivy Tech State College was developed to ensure the good health and safety of all students and employees.

Communicable disease shall be defined as any condition which is transmitted directly or indirectly to a person from an infected person or animal through the agency of an intermediate animal, host or vector, or through the inanimate environment.

Communicable and infectious disease shall include, but is not limited to:

Influenza

Tuberculosis

Conjunctivitis

Infectious Mononucleosis

Acquired Immune Deficiency Syndrome (AIDS) and  
AIDS Related Complex (ARC)

Positive HIV antibody status

Hepatitis A, B, and D

Meningitis

Sexually Transmitted Diseases

No student or employee who has a communicable disease will be required to report the condition to any campus official if the disease or their condition does not pose a medically proven threat for transmission of the disease or

condition. However, students and employees should be encouraged to advise local health authorities if they have a communicable disease. Local health authorities should offer counseling to these persons about measures which can be taken to prevent the spread of infection and about ways to protect their own health.

Persons who know or who have reason to believe that they are infected with a communicable disease have an ethical and legal obligation to conduct themselves in accordance with such knowledge in order to protect themselves and others. Students who have communicable diseases, whether symptomatic or not, will be allowed regular classroom and work attendance in an unrestrictive manner as long as they are physically able to attend classes, college activities and/or work, and do not pose a medically-proven threat for transmission of the disease or condition. When there is no medical justification for totally restricting the access of students who have communicable diseases, they will be allowed access to the College Campus.

No person, group, agency, insurer, employer, or institution should be provided any medical information without the prior specific written consent of a student unless required by state and/or federal law. Furthermore, all medical information relating to the communicable diseases of students and employees will be kept confidential, according to an amendment to the Family Education Rights and Privacy Act of 1974.

For more information regarding this policy, please contact the Student Affairs Office.

**Workplace Violence Policy**

Ivy Tech intends to provide a safe place to work for all students. Violent behavior, direct or indirect threats, harassment or intimidation will not be tolerated.

It is the responsibility of every student to help keep the school safe by monitoring their own behavior and by reporting incidents involving other students which involve any form of violence or threatening behavior.

Experience has shown that there are warning signs to incidents of violence. Examples are: preoccupation with reports of violence, discussion or suggestions about hurting others, continuing complaints, or any threats against other students or faculty/staff.

All students can experience stressful times and they are encouraged to seek assistance when this occurs. Counselors can provide information about appropriate agencies that help people deal with stress.

In order to keep the workplace safe, incidents of violence, threats, harassment, or intimidation will be taken seriously. Through due process, the situation will be investigated and all parties involved will be heard. If verbal abuse, threats, harassing, intimidating, or disruptive behavior

is determined, a student may be suspended or his/her enrollment terminated.

Determination of physical assault, battery, or forcible sex offenses will be grounds of immediate dismissal. A student may appeal these sanctions through the Student Status Committee.

All student actions/behaviors are also governed by local state and federal laws and regulations.

Note: Security should be called when there is a violent incident requiring immediate attention.

- Security . . . 921-4806 or 4806 using a campus phone
- Pager . . . . . \*799-0644 (North Meridian Center)
- Pager . . . . . \*799-0646 (Technology Center)
- \* dial 9 first if using a campus instead of public phone.

**Campus Crime Awareness and  
Campus Security Information**

The mission of the Campus Security Department is to provide the safest educational environment possible for all faculty, staff, students, and visitors to all Ivy Tech State College campus locations.

Any student, prospective student, faculty, or staff person who has been a victim of, or witness of, a criminal act which occurred on any of the facilities or grounds of any Ivy Tech campus is encouraged to immediately report this act to Campus Security. Campus Security operational hours are posted on campus.

Each Ivy Tech campus employs security staff to whom all criminal activity should be reported. It is College policy to assist the police in any investigation which they conduct.

Known and suspected violations of Federal and Indiana laws and other emergencies should be reported to the Campus Security by calling (317) 921-4806.

Access to Ivy Tech State College facilities is from 7:00 a.m.-11:00 p.m. each weekday during the semester.

Faculty, staff and students must work together to take steps to protect themselves from becoming victims of a crime.

The Crime Awareness and Campus Security Act of 1990 requires that the following campus statistics be provided for your information.

**Offenses Reported for 1992, 1993 and 1994:**

Incidents:	1992	1993	1994
Murder	0	0	0
Rape	0	0	0
Robbery	1	0	1

Aggravated Assault/Battery	0	0	0
Burglary	18	36	23
Motor Vehicle Theft	1	1	1
Arrests:			
Liquor Law Violations	0	0	0
Drug Abuse Violations	0	0	0
Weapons Possessions	0	0	0

Students participating in off-campus, college sponsored, activities need to report criminal incidents to the law enforcement agency having jurisdiction, and inform the Campus Security.

## ***Sexual Harassment and Sexual Assault Policy***

Ivy Tech is committed to the maintenance of an environment which is supportive of its primary educational mission and free from all exploitation and intimidation. The College will not tolerate sexual harassment, sexual assault, rape, or other forms of non-consensual sexual activity. Ivy Tech State College supports this policy for students, faculty, and staff through its educational prevention programs and its counseling support services.

Sexual harassment is defined as unwelcome sexual advances, requests to engage in sexual conduct, and other physical and expressive behavior of a sexual nature where:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an education;
2. Submission to or rejection of such conduct by an individual is used as the basis for academic probation affecting the individual; or
3. Such conduct has the purpose or effect of substantially interfering with an individual's academic performance or creating an intimidating, hostile or demeaning employment or educational environment.

Sexual harassment is a form of sex discrimination which is illegal under Title IX of the Education Amendments of 1972 for students.

Ivy Tech will enforce this policy through internal disciplinary procedures, security programs, and the encouragement of external prosecution of alleged offenders through appropriate external judicial forums. Violations of this policy shall include, but not be limited to, the following:

1. Persistence, unwanted attempts to change a professional or educational relationship to a personal one; unwelcome sexual flirtations and inappropriate put-downs of individual persons or classes of people to serious physical abuses such as sexual assault and rape; unwelcome sexual advances; repeated sexually oriented kidding, teasing, joking, or flirting; verbal abuse of a sexual

nature; graphic commentary about an individual's body, sexual prowess, or sexual deficiencies; derogatory or demeaning comments about either gender in general, whether sexual or not; leering, whistling, touching, pinching, or brushing against another's body; offensive crude language; or displaying objects or pictures which are sexual in nature that would create hostile or offensive work or learning environments.

2. Any form of non-consensual sexual intercourse, committed by physical force, coercion, threat, or intimidation, actual or implied, by a person(s) known to the victim.
3. Any actual or attempted non-consensual sexual activity including, but not limited to: sexual intercourse or sexual touching, committed without physical force, coercion, threat, or intimidation; exhibitionism or sexual language of a threatening nature by a person(s) known or unknown to the victim.

Non-consensual activity shall include, but not be limited to, situations where the victim is unable to consent because he/she is physically helpless, mentally incapacitated, or is unconscious. The inability to consent may be due to drug or alcohol consumption, regardless of whether or not the consumption was with the victim's consent.

Consensual sexual activity between an instructor or staff member and a student is discouraged.

Victims of sexual harassment or non-consensual sexual activity at any official College function or course sponsored by the College are encouraged to file a complaint through College officials as soon as possible after the alleged incident. Students should file complaints with the Office of Student Affairs and Affirmative Action Office. Victims of sexual assault should seek medical treatment immediately. If physically injured, victims should seek medical treatment immediately or as quickly as possible. Contact campus security or the police as soon as possible to report the incident.

If the offense involves another student on College property or at any official College function or course sponsored by the College, disciplinary action may be initiated within the College. Sanctions may include required counseling, temporary suspension, or dismissal. Both the accuser and the accused are entitled to have others present during any proceeding. The outcome of the proceedings will be provided to both the accuser and the accused for any proceedings where sexual assault is alleged. The College will attempt to assist the victim with requested changes in academic situations whenever reasonably possible.

Students who perceive that they are victims of sexual harassment on College property should contact the campus Affirmative Action Office or the Student Services Office. The

Affirmative Action Office responds to every complaint, providing proper remediation when harassment is determined. Complaints against students will be forwarded to the Office of Student Affairs for resolution within the College's due process procedures for students.

This policy shall supplement all other College policies relating to sexual assault and harassment, all of which shall remain in effect. All policies shall be applied consistently in such a manner as to accomplish their collective purposes and may be amended from time to time as deemed necessary or desirable by the College.

## **Drug Policy**

### **Definitions**

Substances referred to under this policy include all illegal drugs, alcoholic beverages and misused legal drugs (both prescription and over-the-counter).

Illegal drugs refer to the illegal manufacture, distribution, dispensation, possession or use of controlled substances listed in the Indiana Controlled Substances Act (IC 35-48-1-1, et seq).

The purpose of the Drug-Free College Policy is to maintain a safe and productive teaching and learning environment and to be in compliance with the Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act.

All employees are expected to perform their duties and students are expected to attend classes, labs, and College activities unhindered by the substances defined above. The College will establish a drug-free awareness program for employees and students, and employees and students are expected to work together to maintain a teaching and learning environment free of illegal drugs.

The unlawful manufacture, distribution, dispensation, possession, and use of illegal drugs present a hazard to students, employees, and property and are not permitted at any property in use by the College, at any official function sponsored by the College, and at any course conducted by the College. Any employee or student convicted of a criminal drug offense in or on properties controlled by the College, or while conducting College business is required to notify his/her supervisor or the Director of Student Affairs, respectively, within five days of the conviction.

Any employee who violates this policy is subject to disciplinary action. These actions may include, but are not limited to, reprimand, participation in a treatment program, suspension, and/or termination. Each supervisor is responsible for implementing the Drug-Free College Policy as it relates to employees.

Any student who violates this policy is subject to disciplinary action. Such action may include, but is not limited to, dismissal from College classes, programs, and

activities. The Director of Student Affairs is responsible for implementing the Drug-Free College Policy as it relates to students. As part of an effort to create a drug-free campus, Ivy Tech State College believes that employees and students should be educated about:

1. The physical and emotional health risks associated with the misuse of alcohol and drugs.
2. Treatment programs available in Indiana.
3. The possible legal consequences of drug and alcohol use.

The College encourages employees and students who experience problems with drugs and/or alcohol to seek help before these problems interfere with their performance at Ivy Tech State College and endanger their health and safety.

## **Student Rights and Responsibilities**

### **Student Conduct**

The reputation of Ivy Tech State College and the community depends, in large part, upon the behavior of its students. Students enrolled at the College are expected to conduct themselves in a mature, dignified, and honorable manner.

Students are subject to College jurisdiction while enrolled at Ivy Tech State College. The College reserves the right to take disciplinary action against any student whose conduct, in the opinion of Ivy Tech State College representatives, has not been in the best interests of the student, other students, or the College.

All Ivy Tech State College students are expected to abide by the following College rules of conduct.

"Student" as used refers to a student, a group of students, a prospective student, or a group of prospective students.

Ivy Tech State College—Central Indiana complies with regulations governing Drug-Free Schools and Campuses (34 CFR Part 86). Information about community drug and alcohol abuse programs is available in the Counseling Office located on the first floor of the North Meridian Center.

### **College Rules**

1. Alcoholic Beverages: In compliance with Indiana State Law, consuming, being under the influence of, or possessing intoxicating beverages on College property is not permitted.
2. Illegal Use of Drugs: In compliance with Indiana State Law, being under the influence of, use of, possession of, or distributing illegal drugs is not permitted.

3. Smoking: In compliance with Indiana State Law, Ivy Tech State College buildings are classified as "nonsmoking" facilities.
4. Assembly: College policy states that assembly in a manner that obstructs the free movement of others about the campus, inhibits the free and normal use of the College buildings and facilities, or prevents or obstructs the normal operation of the College is not permitted.
5. Signs: Students may erect signs on campus or display signs or posters on designated bulletin boards after receiving written approval from the appropriate College official.
6. Solicitation of Funds: College policy requires that individuals or organizations seeking the use of campus facilities or scheduling activities to solicit funds, must first obtain written approval from the Director of Marketing and Development. (317) 921-4312.
7. Arms/Deadly Weapons: In compliance with Indiana State Law, possession of firearms (except those possessed by police or security officers) and other weapons is prohibited on College property or at any College sponsored activity held elsewhere.
8. Cheating: Cheating on papers or tests is a violation of College rules.
9. Counterfeiting and Altering: College policy states that copying or altering in any manner any record, document, or identification form used or maintained by the College is not permitted.
10. Theft of Property: Theft of personal or College property is a violation of College rules.
11. Vandalism: The destruction or mutilation of Ivy Tech State College books, magazines, equipment or buildings is a violation of College rules.
12. Use of College Facility: Students are permitted on campus during normal hours published by Ivy Tech State College and at other times established in the College calendar. Students wishing to utilize College facilities at other times must request permission from the appropriate College official.
13. Financial Responsibility: Students are expected to pay all fees, fines, or loans in a timely manner. Grades, records, degrees, etc., will not be awarded until debts to the College are paid. Students will not be allowed to register in an "owe fees" status.
14. Motor Vehicles: Students are expected to comply with parking regulations. Handicapped parking spaces and visitors' areas are reserved for those purposes, and vehicles improperly parked in those areas may be ticketed or towed at the owner's expense.
15. Harassment/Stalking and Intimidation: This is defined as conduct causing alarm, or creating a risk by threatening to commit crimes against persons or their property or making unwelcome sexual advances or requests for sexual favors. This also covers harassment or intimidation of persons involved in a disciplinary hearing and of persons in authority who are in the process of discharging their responsibilities. Harassment, Stalking and Intimidation are not permitted. Perpetrators are also subject to Indiana State Laws.
16. Electronic Equipment or Programs: Use of electronic equipment or programs in a manner that is disruptive to other students, staff, or College processes is prohibited. This includes electronic equipment being played loudly. Students introducing computer virus will be subject to disciplinary action, including dismissal.
17. Sex Offenses- Forcible and Unforcible: Sex offenses are prohibited under Indiana State Laws and College rules.
18. Disruptive Behavior: Behaviors or actions that disrupt the College's processes (academic and/or non-academic) are in violation.
19. Assault/Battery/Physical and/or Verbal Abuse: Altercations are prohibited under College rules. Perpetrators are also subject to Indiana State Law.
20. Discrimination Activities: Any student involved in discrimination activities towards students or staff will face disciplinary action.
21. Gambling: In compliance with Indiana State Law, gambling as prescribed by the law is not allowed.
22. Hazing: Hazing is a violation of College policy.
23. Use of indecent, abusive or threatening language: Use of indecent, threatening, or abusive language is a violation of College rules.
24. Unauthorized use of College name: Unauthorized use of the College name is a violation of College rules.
25. Lewd or indecent conduct: Indecent conduct is a violation of College rules. Students are also subject to all local, state, and federal laws.
26. Violation of local ordinances or of state or federal laws: Students are also subject to all local, state, and federal laws.
27. Furnishing of false information with intent to deceive: Providing false information is a violation of College rules. Students are also subject to all local, state, and federal laws.

28. Children on Campus: Because of insurance and security purposes, children are not allowed to be on Ivy Tech property without direct supervision. Children are not allowed in classrooms unless through the expressed consent of the instructor.

## **Violations**

The College maintains jurisdiction over matters such as, but not limited to, alcoholic beverages, illegal use of drugs, motor vehicles, assembly, soliciting, use of College facilities, the posting or erection of signs, theft, arms/deadly weapons, vandalism, physical or verbal altercations or abuses, harassment, threats and/or discrimination activities.

The College attempts to protect students from those who might violate laws and ordinances. Local, state, or federal law enforcement officials will be notified of anyone who violates local, state, or federal laws. Violators shall be subject to prosecution by the appropriate law enforcement officials.

Anyone found in violation of College regulations shall be subject to disciplinary action by the College through due process procedures for student conduct violations. The regulations and due process procedures as described in the next two parts of the Catalog and in the Student Handbook are available for reading and review in the College Library/Learning Resource Center. Copies of the Student Handbook also are available through the Admissions Office.

## **Disciplinary Action**

A student who violates the rules and regulations of the College may be subject to any of the following disciplinary actions:

1. Verbal reprimand.
2. Restitution for damages.
3. Restriction of privileges.
4. Withdrawal from a course, program, or the College.
5. Suspension from the College.
6. Dismissal from the College.

## **Due Process Procedures for Student Conduct Violations**

Due process provides the College an appropriate mechanism to deal with violation of student conduct and conversely allows a student with a disagreement to grieve against College personnel's decision affecting that student. The intent of due process is to provide a process or procedure for unbiased review of a particular case or situation. The intent, rather than the mechanism, is the focus of this process. Thus, exceptions to the specifics and mechanisms can and will be made.

1. Cases or appeals of student misconduct and/or lack of academic integrity are to be referred to the appropriate designee of the Vice President/Chancellor, Dean of Instructional Affairs, or Director of Student Affairs. This College representative:
  - a. will be responsible to review all initial disciplinary procedures;
  - b. may suspend a student for a period of time until the Student Status Committee can meet;
  - c. may withdraw the student from a course or program or dismiss the student from the College for disciplinary reasons.
2. Students recommended for suspension, withdrawal, or dismissal will be notified in writing. Students will be given an opportunity to appeal the decision to the Student Status Committee if they so choose. Student Status Committee Appeal forms may be obtained from the Dean of Instructional Affairs or the Director of Student Affairs Offices', second floor of the North Meridian Center.
3. The Student Status Committee deals with all cases relating to disciplinary actions or the academic status of students. Each region has a Student Status Committee that makes recommendations to the Vice President/Chancellor.
4. The Student Status Committee will be composed of at least six members, including two full-time instructional staff members and two administrative staff persons appointed by the Vice President/Chancellor of the region. The additional two members will be students designated by the Student Senate. The Committee's review and subsequent disposition of a formal complaint will begin no later than 30 days after receipt of the written complaint. Staff legal counsel, as needed, will be available to the Committee.
5. The Student Status Committee will assure the student due process. A written statement will first be presented by the student to the chairman of the Student Status Committee. The student will be invited to speak on his or her behalf to the Committee. The name of anyone the student wishes to bring to the meeting must be submitted for approval, in writing, to the Student Status Committee Chair prior to the meeting. Only the student may address the committee, unless otherwise allowed.
6. The Student Status Committee will issue a recommendation to the Vice President/Chancellor following its deliberation. Disciplinary probation or dismissal from the College will be final only

after review by the Vice President/Chancellor, who may approve or disapprove the recommendation of the Student Status Committee. Students dismissed for disciplinary reasons will not be entitled to refunds.

7. The student will be informed in writing of the decision of the Student Status Committee and of the subsequent recommendations to the Vice President/Chancellor, whose decision is final. All of the written recommendations from the committee will be filed in the student's folder in the Registrar's Office.
8. If the student disagrees with the Student Status Committee recommendation, he or she may file a complaint with the Vice President/Chancellor within 72 hours after notification of the Student Status Committee's decision.
9. Exceptions to these rules may be made in extenuating circumstances at the discretion of the Vice President/Chancellor or his designee, upon request by those involved.

## ***Student Grievances***

Students may bring legitimate grievances to the attention of their instructors, counselors or other advisors. Students are asked to put their grievance and possible resolution in writing. Time will be provided for a grievance conference within two weeks of the complaint. The purpose of the conference is to discuss the problem and to find, if possible, a mutually satisfactory resolution. The conferences will be held within two weeks of notice of the complaint.

The first part of the process involves the student working one-to-one with appropriate staff to resolve the situation. If the grievance concerns an instructor or faculty advisor, the student, through a stepladder process, should first request a conference with a program chair or area supervisor. If the situation is not resolved, the student should address the assistant divisional chairperson. The next step, if there is no resolution, is to meet with the divisional chair. Finally through this part of the process, the student can petition the Dean of Instructional Affairs.

Non-instructional areas follow the same step process. Through Student Affairs, for example, the process would be counselors, then manager, and finally Director of Student Affairs.

If the grievance is against the Dean of Instructional Affairs or Director of Student Affairs, the case will be remanded to the Student Status Committee.

The student who feels his or her grievance has not been resolved to his/her satisfaction through the one-to-one part of the process should then continue the grievance process by requesting a hearing of the Student Status Committee. The

Student Status Committee is the final part of the grievance process and involves the Student Status Committee and the Vice President/Chancellor.

Note: If the student has a discrimination complaint, it will be referred to the Affirmative Action Officer to be initially processed under the College Affirmative Action Plan. If a hearing is necessary, the Affirmative Action Officer may return the matter, with advice, to the Student Status Committee, for a formal hearing.

## ***Student Grievance Policy***

1. Bring your complaint to the attention of your instructor, advisor, or counselor.
2. Your advisor, instructor, or counselor will provide you with a conference within two weeks of the notice of your complaint.
3. If you feel that such a conference with your instructor, advisor, or counselor would be futile because of the advisor's involvement in the grievance, you may elect to request a conference with a program chairperson or assistant divisional chairperson, division chair or manager as deemed appropriate. This conference will also be held within two weeks of the notice of your complaint.
4. If the complaint is not resolved to your satisfaction through the informal procedure, you may submit the grievance in writing to the Dean of Instructional Affairs or Director of Student Affairs. Exception: If the complaint is filed against a Director or Dean, his/her responsibility in these procedures shall be assumed by another Director/Dean.
5. The formal written complaint brought by a student must:
  - a. Clearly state the facts giving rise to the grievance;
  - b. Clearly state the remedy sought by the complaining party;
  - c. Be signed and dated.
6. If the situation is not resolved at the previous levels, the written complaint shall be forwarded to the chair of the Student Status Committee unless the Vice President/Chancellor decides to resolve the complaint in another way which will be explained to the grievant in writing.

The Student Status Committee is responsible for review and disposition of any such complaint forwarded to it.

The disposition of a formal grievance procedure may be one of the following:

- a. Refuse further action: If no formal case has

been made by the complainant, the matter will be refused in writing to said grievant with reasons for this action. The grievant may resubmit the complaint once within 30 days providing there is additional information to be submitted. If not, the decision is final.

b. Fact-finding and mediation: The Committee itself can engage in investigation of the allegation as an attempt to mediate with parties a mutually agreeable resolution of the matter. A signed agreement should be generated summarizing the issue and resolution, if agreement is reached.

c. Referral: The complaint may be referred to a more appropriate forum for action.

d. If the complaint is a discrimination complaint, it should be referred to the Director of Affirmative Action Programs to be initially processed under the College Affirmative Action Plan. If a hearing is necessary, the Director of Affirmative Action Programs may return the matter, with advice, to the Student Status Committee for a formal hearing.

e. If the Committee believes a policy or procedure of the College is being legitimately challenged, it will refer the grievance to the Vice President/Chancellor with an explanation of its concern.

f. Remand complaint: If it appears no legitimate informal attempt to resolve the matter has taken place and it appears such discussion might lead to resolution of the complaint, then referral of the matter to the student advisor or other appropriate staff person for review and discussion with the

student would be in order. If resolved, a report to the Student Status Committee will be made by such staff person. The Student Status Committee will review the agreement reached with the student to assure that, in fact, there was mutual agreement and understanding.

g. Hold formal hearing: If a grievance cannot be resolved utilizing the steps listed above, the committee may hold a formal hearing. If held, the Committee may call witnesses including the parties to the complaint. The name of anyone the student wishes to bring to the meeting must be submitted for approval, in writing. Legal counsel may be present, but not talk on behalf of the student. A recommendation will then be formulated and a report made to the Vice President/Chancellor of the suggested resolution of the matter.

# STUDENT INFORMATION

## **Accreditation**

Ivy Tech State College is an accredited member of the North Central Association of Colleges and Schools.

## **Professional Accreditations:**

American Culinary Federation Educational Institute

American Institute for Design and Drafting

Commission on Accreditation of Allied Health Education Program (CAAHEP) with selected professional groups including:

Joint Review Committee on Education Radiologic Technology

Accrediting Review Committee for Educational Programs in Surgical Technology

Joint Review Committee for Respiratory Therapy Education

Association of Collegiate Business Schools and Programs

Council for Standards in Human Services Education

Federal Aviation Administrative Collegiate Training Initiative Electronics Program

National Academy of Early Childhood Programs

National Association of Industrial Technology

National Automotive Technician Education Foundation, Inc.

National League of Nursing

## **Approved By:**

Chef de Cuisine Association of Indiana, Inc.

Indiana Commission on Vocational and Technical Education

Indiana State Board of Nursing

Indiana State Board of Health (Qualified Medication Aide, Nurse Aide, Social Service/Long Term Care)

## **Non-Discrimination Policy**

Ivy Tech State College seeks to develop degree credit programs, courses and community service offerings and to provide open admission, counseling and placement services for all persons, regardless of race, color, creed, religion, gender, national origin, physical or mental handicap, age or veteran status.

Questions can be addressed to:

Director of Employee Relations: (317) 921-4762

## **Fire**

In case of fire, please remain calm and move in an orderly fashion to the nearest exit. After you have exited the building, move a safe distance away.

## **Tornado**

In the event of a tornado warning, it is usually wise to move to an inner room and lower level away from glass windows.

## **Non-Smoking Policy**

It is the policy of this College, as mandated by state law, to prohibit smoking within the College buildings. Please use the containers located outside the exterior doors to extinguish your cigarettes, etc. Ivy Tech State College appreciates your cooperation.

## **Lounge/Food Service**

Sandwich, soft drink, and candy machines are provided in the student lounge. Students also have access to a microwave oven, television and pay phone. Food items are not to be taken out of the lounge area. Please make use of trash containers to keep tables clean. There is a change machine located in the student lounge in both buildings. Vending machine refunds/problems can be taken care of through the Security Office.

## **Parking and Housing**

Rearview mirror parking hang-tags are provided to the students free of charge. Since Ivy Tech State College is a commuter college, there are no residence halls. If a student is unable to commute, further information can be obtained from the Admissions Office. There is a \$5.00 replacement fee for parking tags.

# Accounting Technology

In the Accounting Program, students develop an understanding of accounting principles, business law, communications, business equipment and related areas of study in the field. Instruction is offered in computerized accounting systems. Technical skills in financial accounting, cost accounting, and tax preparation are emphasized.

Accounting duties typically include maintaining journals and ledgers, processing banking transactions, billing, preparing payroll, maintaining inventory records, purchasing, processing expense reports, preparing financial statements and analyzing managerial reports. Position titles include junior or staff accountant, junior auditor, cost accounting clerk, bookkeeper, payroll clerk, inventory clerk, accounts receivable clerk, and financial management trainee.

A two-year program requiring 60 credits leads to an Associate in Applied Science degree or an Associate in Science degree. Career development certificates also are available.

## Associate in Science (AS) — Accounting Technology

### GENERAL EDUCATION CORE (24 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
ENG	112	Exposition and Persuasion	3
POL	101	Introduction to American Government and Politics	3
MAT	111	Intermediate Algebra	3
SOC	111	Introduction to Sociology	3
XXX	XXX	Life/Physical Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
ACC	102	Accounting Principles II	3
BUS	101	Introduction to Business	3
BUS	102	Business Law	3
CIS	101	Introduction to Microcomputers	3
CIS	115	Electronic Spreadsheets in Business	3

### SPECIALTY CORE (15 Credits)

ACC	105	Income Tax I	3
ACC	201	Intermediate Accounting I	3
ACC	202	Intermediate Accounting II	3
ACC	203	Cost Accounting I	3
ACC	209	Auditing	3

### REGIONALLY DETERMINED CORE (3 Credits)

ACC	106	Payroll Accounting	3
ACC	111	Accounting Principles Lab I	1
ACC	112	Accounting Principles Lab II	1
ACC	206	Managerial Accounting	3
ACC	208	Income Tax II	3
ACC	222	Accounting Software Application	3

TOTAL CREDITS 60

## Associate in Applied Science (AAS) — Accounting Technology

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
ACC	102	Accounting Principles II	3
BUS	101	Introduction to Business	3
BUS	102	Business Law	3
CIS	101	Introduction to Microcomputers	3
CIS	115	Electronic Spreadsheets in Business	3

### SPECIALTY CORE (12 Credits)

ACC	105	Income Tax I	3
ACC	201	Intermediate Accounting I	3
ACC	202	Intermediate Accounting II	3
ACC	203	Cost Accounting I	3

### REGIONALLY DETERMINED CORE (12 Credits)

ACC	106	Payroll Accounting	3
ACC	111	Accounting Principles Lab I	1
ACC	112	Accounting Principles Lab II	1
ACC	206	Managerial Accounting	3
ACC	208	Income Tax II	3
ACC	222	Accounting Software Application	3

TOTAL CREDITS 60

# Administrative Office Technology

The Administrative Office Technology Program prepares students for an automated office environment. Students develop basic office skills and acquire computer skills, including word processing, spreadsheets, databases, and microcomputer operating systems. Several applications (advanced word processing, desktop publishing, and integrated packages) can also be studied in depth.

The Administrative Office Technology Program is designed to accommodate students with different levels of training experiences. Courses are offered which provide initial, advanced and refresher education and assist individuals in achieving professional recognition and career progression. The program prepares graduates as administrative office personnel and provides opportunities for specialized training in such areas as legal, medical, and office automation. Students who complete the recommended sequences of courses are eligible to take the Administrative/Information Processing Specialist (AIPS) or the Certified Professional Secretary (CPS) exams administered by the Institute for Certifying Secretaries of the Professional Secretaries International Association (PSI).

A two-year program requiring 60 credits leads to an Associate in Applied Science degree and an Associate in Science degree. Technical certificates and career development certificates also are available.

## Associate in Science (AS) — Administrative Office Technology

### GENERAL EDUCATION CORE (24 Credits)

COM	101	Fundamentals of Public Speaking	3
COM	102	Intro to Interpersonal Communications	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
POL	101	Introduction to American Government and Politics	3
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (36 Credits)

ACC	101	Accounting Principles I	3
ACC	102	Accounting Principles II	3
AOT	103	Info/Word Processing Concepts	3
AOT	119	Document Production	3
AOT	220	Document Management	3
AOT	221	Office Management Procedures	3
BUS	101	Introduction to Business	3
BUS	102	Business Law	3
BUS	105	Principles of Management	3
CIS	101	Introduction to Microcomputers	3
CIS	115	Electronic Spreadsheets in Business	3
XXX	XXX	Technical Elective	3

TOTAL CREDITS 60

## Associate in Applied Science (AAS) — Administrative Office

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3

ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
AOT	103	Information/Word Processing Concepts	3
AOT	119	Document Production	3
AOT	219	Specialized Formatting/Transcription	3
BUS	101	Introduction to Business	3
CIS	101	Introduction to Microcomputers	3

### SPECIALTY CORE (12 Credits)

AOT	116	Business Communications	3
AOT	202	Information Word Processing Applications	3
AOT	220	Document Management	3
AOT	221	Office Management/Procedures	3

### REGIONALLY DETERMINED CORE

(6 Credits)

AOT	212	Micro Word Processing	3
CIS	115	Electronic Spreadsheets in Business	3

### ELECTIVES (6 Credits)

AOT	108	Shorthand I	3
AOT	111	Shorthand II	3
AOT	112	Data Entry	3
AOT	113	Office Calculating Machines	3
AOT	207	Office Automation Applications	3
AOT	214	Desktop Publishing	3
AOT	216	Practicum/Internship	3
ACC	102	Accounting Principles II	3
BUS	102	Business Law	3
CIS	106	Micro Operating Systems	3

TOTAL CREDITS 60

## Associate in Applied Science (AAS) — Administrative Office Technology / Legal Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (36 Credits)

ACC	101	Accounting Principles I	3
AOT	103	Information/Word Processing Concepts	3
AOT	116	Business Communications	3
AOT	119	Document Production	3
AOT	215	Legal Terminology	3
AOT	219	Specialized Formatting and Transcription	3
AOT	221	Office Management and Procedures	3
BUS	101	Introduction to Business	3
CIS	101	Introduction to Microcomputers	3
CIS	115	Electronic Spreadsheets in Business	3
LEG	101	Introduction to Paralegal Studies	3
LEG	103	Civil Procedures	3

### REGIONALLY DETERMINED CORE (6 Credits)

AOT	212	Microcomputer Word Processing	3
AOT	214	Desktop Publishing	3
BUS	102	Business Law	3
CIS	106	Micro Operating Systems	3
LEG	109	Family Law	3
LEG	111	Criminal Law	3
LEG	202	Litigation	3

TOTAL CREDITS 60

## Technical Certificate (TC) — Secretarial Administrative

### GENERAL EDUCATION CORE (6 Credits)

ENG	111	English Composition	3
SOC	XXX	Social Sciences Elective	3

### TECHNICAL CORE (24 Credits)

AOT	103	Information/Word Processing Concepts	3
AOT	116	Business Communications	3
AOT	119	Document Production	3
AOT	219	Specialized Formatting/Transcriptions	3
AOT	220	Document Management	3
AOT	221	Office Management/Procedures	3
CIS	101	Introduction to Microcomputers	3
XXX	XXX	Elective	3

### ELECTIVES (3 Credits)

AOT	108	Shorthand I	3
AOT	112	Data Entry	3
AOT	113	Office Calculating Machines	2
AOT	202	Info/Word Processing Applications	3
AOT	207	Office Automation Applications	3
AOT	214	Desktop Publishing	3
AOT	216	Practicum/Internship	3
ACC	101	Accounting Principles I	3
CIS	106	Micro Operating Systems	3
CIS	115	Electronic Spreadsheets in Business	3

TOTAL CREDITS 30

## Technical Certificate (TC) — Medical Secretary

### GENERAL EDUCATION CORE (6 Credits)

ENG	111	English Composition	3
SOC	XXX	Social Sciences Elective	3

### TECHNICAL CORE (24 Credits)

AOT	103	Info/Word Processing Concepts	3
AOT	113	Office Calculating Machines	1
AOT	220	Document Management	3
AOT	221	Office Management and Procedures	3
CIS	101	Introduction to Microcomputers	3

HHS	101	Medical Terminology	3
MEA	111	Medical Typing and Transcription	3
MEA	201	Medical Transcription and Word Processing	2
XXX	XXX	Elective	3

### ELECTIVES (3 Credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3
AOT	202	Info/Word Processing Applications	3
AOT	207	Office Automation Applications	3
AOT	212	Microcomputer Word Processing	3
CIS	115	Electronic Spreadsheets in Business	3
MEA	115	Medical Insurance	3

TOTAL CREDITS 30

# Automotive Technology

The Automotive Technology Program prepares students with the general and technical education needed for successful careers in automotive service, sales, technical support, management and customer relations, and for continuation in higher education. A student in the Automotive Technology Program may specialize in automotive body repair or automotive service.

A two-year program requiring 69 credits leads to an Associate in Applied Science degree. Technical and career development certificates also are available.

## Associate in Applied Science (AAS) — Automotive Technology / Automotive Service Specialty \*

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
SCI	111	Physical Science	3
ELECTIVE:		Humanities/Social Sciences	3
ELECTIVE:		General Education	3

### TECHNICAL CORE (18 Credits)

AMV	100	Introduction to Transportation	3
AMV	101	Chassis/Suspension Principles	3
AMV	107	Engine Principles & Design	3
AMV	113	Electricity for Transportation	3
AMV	202	Computer Engine Controls	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

AST	105	Fuel Systems	3
AST	201	Heating & Air Conditioning Principles	3
AST	209	Automotive Braking Systems	3
AST	220	Transmission & Driveline Service	3

### REGIONALLY DETERMINED CORE (21 Credits)

AST	102	Two/Four Wheel Alignment	3
AST	104	Start and Charge Systems	3
AST	203	Engine Rebuild	3
AST	204	Automatic Transmission/Transaxle	3
AST	205	Manual Transmission/Transaxle	3
AST	207	Advanced Engine Performance	3
AST	288.03	Electronic & Accessory Systems	3

TOTAL CREDITS 69

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT) and in all eight areas of the Automotive Service Excellence (ASE) by the National Automotive Technicians Education Foundation (NATEF).

## Associate in Applied Science (AAS) — Automotive Technology / ASSET-Ford Motor Co. Specialty \*

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
SCI	111	Physical Science	3
ELECTIVE:		Humanities/Social Sciences	3
ELECTIVE:		General Education	3

### TECHNICAL CORE (18 Credits)

AMV	100	Ford Introduction to Transportation	3
AMV	101	Ford STST Suspension and Steering	3
AMV	107	Ford Engine Principles & Design	3
AMV	113	Ford STST Electrical Systems	3
AMV	202	Ford STST Electronic Engine Controls	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

AST	105	Ford Fuel Systems	3
AST	201	Ford STST Climate Control	3
AST	209	Ford Automotive Braking Systems	3
AST	220	Ford Transmission & Driveline Service	3

### REGIONALLY DETERMINED CORE (21 Credits)

AST	102	Ford STST Steering	3
AST	104	Ford Start and Charge Systems	3
AST	203	Ford STST Engine Repair	3
AST	204	Ford Automatic Transmission/Transaxle	3
AST	205	Ford Manual Transmission/Transaxle	3
AST	207	Ford STST Advanced Engine Performance	3
AST	288.02	Ford STST Automatic Transmission	3

TOTAL CREDITS 69

NOTE: STST — Service Technician Specialty Training

NOTE: ASSET - Automotive Service Educational Training

\* Accredited by the Accreditation board of the National Association of Industrial Technology (NAIT) and in all eight areas of the Automotive Service Excellence (ASE) by the National Automotive Technicians Education Foundation (NATEF).

## Associate in Applied Science (AAS) — Automotive Technology / ASEP-General Motors Specialty \*

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
SCI	111	Physical Science	3
ELECTIVE:		Humanities/Social Sciences	3
ELECTIVE:		General Education	3

### TECHNICAL CORE (18 Credits)

AMV	100	GM Introduction to Transportation	3
AMV	101	GM STG Suspension and Steering	3
AMV	107	GM Engine Principles & Design	3
AMV	113	GM STG Specialized Electronics Training	3
AMV	202	GM Computer Engine Controls	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

AST	105	GM Fuel Systems	3
AST	201	GM STG Climate Control	3
AST	209	GM STG Braking Systems/RWAL/4WAL	3
AST	220	GM STG Drive Train	3

### REGIONALLY DETERMINED CORE (21 Credits)

AST	102	GM STG Steering and Alignment	3
AST	104	GM Start and Charge Systems	3
AST	203	GM Engine Rebuild	3
AST	204	GM Automatic Transmission/Transaxle	3
AST	205	GM Manual Transmission/Transaxle	3
AST	207	GM STG Drivability	3
AST	288.01	GM Electronic & Accessory Systems	3

TOTAL CREDITS 69

NOTE: STG — Service Technology Group

## Associate in Applied Science (AAS) — Automotive Technology / T-TEN - Toyota Specialty \*

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
SCI	111	Physical Science	3
ELECTIVE:		Humanities/Social Sciences	3
ELECTIVE:		General Education	3

### TECHNICAL CORE (18 Credits)

AMV	100	Introduction to Transportation	3
AMV	101	T-TEN Chassis and Suspension	3
AMV	107	Engine Principles & Design	3
AMV	113	Toyota Electrical Circuits	3
AMV	202	Toyota Computer Engine Controls	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

AST	105	Toyota Fuel Systems	3
AST	201	Toyota Climate Control	3
AST	209	T-TEN Braking Systems	3
AST	220	Toyota Transmission & Driveline Service	3

### REGIONALLY DETERMINED CORE (21 Credits)

AST	288.03	Toyota Electronics & Accessory Systems	3
AST	102	T-TEN Alignment	3
AST	104	T-TEN Start and Charge Systems	3
AST	203	Engine Rebuild	3
AST	204	Automatic Transmission/Transaxle	3
AST	205	Toyota Manual Transmission/Transaxle	3
AST	207	Toyota Engine Performance	3

TOTAL CREDITS 69

NOTE: T-TEN — Toyota Technical Education Network

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT) and in all eight areas of the Automotive Service Excellence (ASE) by the National Automotive Technicians Education Foundation (NATEF).

# Business Administration

The Business Administration Program gives students the broad background they need for general administrative positions in a variety of business environments. It also provides an opportunity for specialization. A student in the Business Administration Program may specialize in one of the following areas: logistics management, management, marketing, quality management or supervision.

A two-year program requiring 60 credits leads to an Associate in Applied Science degree. Technical certificates and career development certificates also are available.

## Associate in Applied Science (AAS) — Business Administration / Management Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	XXX	Economics Elective	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
BUS	101	Introduction to Business	3
BUS	102	Business Law	3
BUS	105	Principles of Management	3
CIS	101	Introduction to Microcomputers	3
MKT	101	Principles of Marketing	3

### SPECIALTY CORE (12 Credits)

BUS	202	Human Resource Management	3
BUS	204	Case Problems in Management	3
BUS	208	Organizational Behavior	3
BUS	210	Managerial Finance	3

### REGIONALLY DETERMINED CORE

(12 Credits)

BUS	203	Entrepreneurship	3
LOG	101	Materials Management	3
SUP	223	Total Quality Management	3
SUP	224	Operations Management	3

TOTAL CREDITS 60

## Associate in Applied Science (AAS) — Business Administration / Logistics Management Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	XXX	Economics Elective	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
BUS	101	Introduction to Business	3
BUS	102	Business Law	3
BUS	105	Principles of Management	3
CIS	101	Introduction to Microcomputers	3
MKT	101	Principles of Marketing	3

### SPECIALTY CORE (12 Credits)

LOG	101	Introduction to Materials Management	3
LOG	201	Transportation Systems	3
LOG	202	Physical Distribution	3
MKT	202	Logistics/Purchasing Control	3

### REGIONALLY DETERMINED CORE

(12 Credits)

BUS	204	Case Problems in Management	3
SUP	223	Total Quality Management	3
MKT	XXX	Marketing Elective	3
SUP	224	Operations Management	3

TOTAL CREDITS 60

## Associate in Applied Science (AAS) — Business Administration / Marketing Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	XXX	Economics Elective	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
BUS	101	Introduction to Business	3
BUS	102	Business Law	3
BUS	105	Principles of Management	3
CIS	101	Introduction to Microcomputers	3
MKT	101	Principles of Marketing	3

### SPECIALTY CORE (12 Credits)

MKT	102	Principles of Selling	3
MKT	104	Advertising	3
MKT	202	Logistics/Purchasing Control	3
MKT	220	Principles of Retailing	3

### REGIONALLY DETERMINED CORE (12 Credits)

BUS	208	Organizational Behavior	3
MKT	201	Introduction to Market Research	3
MKT	204	Marketing Management	3
SUP	224	Operations Management	3

TOTAL CREDITS 60

# Computer Information Systems

The Computer Information Systems curriculum, with specialties in computer programming and microcomputer operations, is designed to provide the flexible and comprehensive training required by employers. The curriculum includes technical courses in computer information systems and related areas, general education, and regionally determined technical courses in each specialty area.

Automated systems allow for the integration of several functionally related applications such as word processing, database management, spreadsheets, programming, electronic mail systems, graphics generation, and telecommunications. These systems may be stand-alone, shared logic, distributed, or integrated. Demand for employees with computer and business skills is particularly high in small and medium-size firms which create, transmit, and control information by using computer technology as a management tool.

A two-year program requiring 60 credits leads to an Associate in Applied Science degree. An Associate in Science degree is available at selected campuses.

## Associate in Applied Science (AAS) — Computer Information Systems / Microcomputer Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
BUS	101	Introduction to Business	3
CIS	101	Introduction to Microcomputers	3
CIS	102	Data Processing Fundamentals	3
CIS	113	Logic, Design, and Programming	3
CIS	203	Systems Analysis and Design	3

### SPECIALTY CORE (12 Credits)

CIS	106	Microcomputer Operating Systems	3
CIS	115	Electronic Spreadsheets in Business	3
CIS	202	Data Communications	3
CIS	224	Hardware and Software Troubleshooting	3

### REGIONALLY DETERMINED CORE

(6 Credits)

CIS	207	Micro Database Management Systems	3
CIS	223	Integrated Business Software	3

### ELECTIVES

(6 Credits)

CIS	105	Mini-Mainframe Operating Systems	3
CIS	107	Microcomputer Programming	3
CIS	109	Unix V Operating Systems	3
CIS	110	Basic Programming Language	3
CIS	206	Systems Development with High Level Tools	3
CIS	208	Electronic Spreadsheets	3
CIS	211	RPG Programming Fundamentals	3
CIS	213	Assembler Language Programming	3
CIS	214	Pascal Programming	3
CIS	216	Advanced RPG Programming (AS/400)	3
CIS	220	Shell Command Language for Programmers	3
CIS	221	Advanced "C" Programming	3
CIS	223	Integrated Business Software	3
CIS	225	Advanced Database Management Systems	3
CIS	226	Advanced Electronic Spreadsheets	3
CIS	232	Visual Basic Programming	3
CIS	233	Graphic User Interfaces: Windows	3
CIS	235	Local Area Networks	3

TOTAL CREDITS

60

## Associate in Applied Science (AAS) — Computer Information Systems / Programming Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Life/Physical Sciences Elective	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
BUS	101	Introduction to Business	3
CIS	101	Introduction to Microcomputers	3
CIS	102	Data Processing Fundamentals	3
CIS	113	Logic, Design, and Programming	3
CIS	203	Systems Analysis and Design	3

### SPECIALTY CORE (12 Credits)

CIS	104	Introduction to COBOL Programming	3
CIS	106	Microcomputer Operating Systems	3
CIS	201	Database Design and Management	3
CIS	202	Data Communications	3

### REGIONALLY DETERMINED CORE

(6 Credits)

CIS	204	Advanced COBOL Programming	3
CIS	212	"C" Programming	3

### ELECTIVES

(6 Credits)

CIS	105	Mini-Mainframe Operating Systems	3
CIS	107	Microcomputer Programming	3
CIS	109	Unix V Operating Systems	3
CIS	110	Basic Programming Language	3
CIS	206	Systems Development with High Level Tools	3
CIS	208	Electronic Spreadsheets	3
CIS	211	RPG Programming Fundamentals	3
CIS	213	Assembler Language Programming	3
CIS	214	Pascal Programming	3
CIS	216	Advanced RPG Programming (AS/400)	3
CIS	220	Shell Command Language for Programmers	3
CIS	221	Advanced "C" Programming	3
CIS	223	Integrated Business Software	3
CIS	225	Advanced Database Management Systems	3
CIS	226	Advanced Electronic Spreadsheets	3
CIS	232	Visual Basic Programming	3
CIS	233	Graphic User Interfaces: Windows	3
CIS	235	Local Area Networks	3

TOTAL CREDITS

60

# Design Technology

The Design Technology Program is competency-based and is designed to be responsive to the needs of business and industry. The program provides an environment conducive to the development of general knowledge, technical skills and critical thinking skills so graduates may enter their profession as entry level technicians. They also will be prepared to respond to future advances and changes in their profession. Included is a blend of traditional “board” techniques with latest hardware and software used in industry today. This balance of skills in both areas helps provide students with the diversity necessary to be competitive in the job market. Graduates will have the necessary skills to choose related careers or continue their education at other post-secondary institutions.

Associate in Applied Science degrees require 64 credits. Specialties include architecture, civil, mechanical and graphic design.

Technical and career development certificates also are available.

## Associate in Applied Science (AAS) — Design Technology / Architectural Specialty\*

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (21 Credits)

DSN	103	CAD Fundamentals	3
DSN	106	Descriptive Geometry	3
DSN	220	Advanced CAD	3
DSN	221	Statics	3
DSN	222	Strength of Materials	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

DCT	105	Facilities Design and Layout	3
DCT	109	Construction Materials and Specifications	3
DCT	204	Architectural CAD	3
DCT	208	Structural Detailing	3

### REGIONALLY DETERMINED CORE (12 Credits)

DCT	113	Intermediate CAD	3
DCT	202	CAD Programming Language	3
DCT	206	Mechanical and Electrical Equipment	3
DCT	210	Surveying I	3

TOTAL CREDITS 64

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT) and the American Design Drafting Association (ADDA).

## Associate in Applied Science (AS) — Design Technology / Mechanical Specialty\*

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (21 Credits)

DSN	103	CAD Fundamentals	3
DSN	106	Descriptive Geometry	3
DSN	220	Advanced CAD	3
DSN	221	Statics	3
DSN	222	Strength of Materials	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

DCT	104	Product Drafting	3
DCT	202	CAD Programming Language	3
DCT	217	Product Design	3
TEC	101	Manufacturing Processes	3

### REGIONALLY DETERMINED CORE (12 Credits)

DCT	105	Facilities Design and Layout	3
DCT	113	Intermediate CAD	3
DCT	201	Schematic Drafting	3
DCT	216	Jig and Fixture Design	3

TOTAL CREDITS 64

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT) and the American Design Drafting Association (ADDA).

## Associate in Applied Science (AAS) — Design Technology / Civil Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (21 Credits)

DSN	103	CAD Fundamentals	3
DSN	106	Descriptive Geometry	3
DSN	220	Advanced CAD	3
DSN	221	Statics	3
DSN	222	Strength of Materials	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

DCT	109	Construction Materials & Specifications	3
DCT	208	Structural Detailing	3
DCT	210	Surveying I	3
DCT	213	CAD Mapping	3

### REGIONALLY DETERMINED CORE (12 Credits)

DCT	113	Intermediate CAD	3
DCT	202	CAD Programming Language	3
DCT	228	Civil I	3
DCT	229	Civil II	3

TOTAL CREDITS 64

## Associate in Applied Science (AAS) — Design Technology / Computer Graphic Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (21 Credits)

DSN	103	CAD Fundamentals	3
DSN	106	Descriptive Geometry	3
DSN	220	Advanced CAD	3
DSN	221	Statics	3
DSN	222	Strength of Materials	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

ART	111	Drawing for Visualization	3
ART	114	Graphic Design	3
VIS	101	Fundamentals of Design	3
VIS	115	Introduction to Computer Graphics	3

### REGIONALLY DETERMINED CORE (12 Credits)

ART	218	Digital Production	3
ART	217	Advanced Graphic Design	3
GRA	202	Science of Color	3
DCT	230	Fundamentals of Animation	3

TOTAL CREDITS 64

## Technical Certificate (TC) — Design Technology

### GENERAL EDUCATION CORE (6 Credits)

ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3

### TECHNICAL CORE (3 Credits)

TEC	104	Computer Fundamentals for Technology	3
-----	-----	--------------------------------------	---

### SPECIALTY CORE (6 Credits)

DSN	103	CAD Fundamentals	3
TEC	102	Technical Graphics	3

## REGIONALLY DETERMINED CORE (18 Credits)

DCT	104	Product Drafting	3
DCT	105	Facilities Design and Layout	3
DCT	113	Intermediate CAD	3
DSN	106	Descriptive Geometry	3
ELECTIVE:		Humanities/Social Sciences	3

Students should select 3 Credits from the  
following:

DCT	109	Construction Materials and Specifications	3
MAT	110	Contemporary College Mathematics	3
TEC	101	Manufacturing Processes	3

TOTAL CREDITS 33

# Electronics Technology

The Electronics Technology Program is competency-based and is designed to meet the on-going needs of business, industry, and the student. The program is structured to develop technical skills, general knowledge, and the critical thinking and problem solving abilities of graduates, thereby assisting the student in adapting to changes in the work environment and allowing advancement in the field. Additionally, the program prepares the student to transfer into baccalaureate degree-granting institutions.

Associate in Applied Science degrees require 66 credits. Specialties include communications, industrial electronics, and microwave systems. Post-curriculum specialization courses and career development certificates are available.

## Associate in Applied Science (AAS) — Electronics Technology / Communications Specialty\*

### GENERAL EDUCATION CORE (23 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	131	Algebra/Trigonometry I	3
MAT	132	Algebra/Trigonometry II	3
PHY	101	Physics I	4
PHY	102	Physics II	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

ELT	100	Circuits I	4
ELT	101	Circuits II	4
ELT	103	Digital Principles	3
ELT	105	Solid State I	4
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (13 Credits)

ELT	201	Solid State II	4
ELT	228	Communications Electronics	3
ELT	229	Telecommunications	3
ELT	230	Advanced Communications Electronics	3

### REGIONALLY DETERMINED CORE (12 Credits)

ELT	106	Digital Applications	4
ELT	202	Microprocessors	4
ELT	227	Peripherals	3
ELT	288.01	Special Topics in Solid State	1

TOTAL CREDITS 66

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT) and the Federal Aviation Administration (FAA) Airway Facilities Collegiate Training Initiative (AF-CTI)

## Associate in Applied Science (AAS) — Electronics Technology / Industrial Electronics Specialty\*

### GENERAL EDUCATION CORE (23 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	131	Algebra/Trigonometry I	3
MAT	132	Algebra/Trigonometry II	3
PHY	101	Physics I	4
PHY	102	Physics II	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

ELT	100	Circuits I	4
ELT	101	Circuits II	4
ELT	103	Digital Principles	3
ELT	105	Solid State I	4
TEC	104	Computer Fundamentals for Technology	3

### SPECIALTY CORE (12 Credits)

AMT	201	Manufacturing System Controls	3
ELT	203	Introduction to Industrial Controls	3
ELT	214	Industrial Instrumentation	3
ELT	223	Electrical Machines	3

### REGIONALLY DETERMINED CORE (13 Credits)

ELT	106	Digital Applications	4
ELT	201	Solid State II	4
ELT	202	Microprocessors	4
ELT	288.01	Special Topics in Solid State	1

TOTAL CREDITS 66

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT).

# Associate in Applied Science (AAS) — Electronics Technology / Microwave Systems Specialty\*

## GENERAL EDUCATION CORE (23 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	131	Algebra/Trigonometry I	3
MAT	132	Algebra/Trigonometry II	3
PHY	101	Physics I	4
PHY	102	Physics II	4
ELECTIVE:		Humanities/Social Sciences	3

## TECHNICAL CORE (18 Credits)

ELT	100	Circuits I	4
ELT	101	Circuits II	4
ELT	103	Digital Principles	3
ELT	105	Solid State I	4
TEC	104	Computer Fundamentals for Technology	3

## SPECIALTY CORE (13 Credits)

ELT	201	Solid State II	4
ELT	227	Peripherals	3
ELT	229	Telecommunications	3
ELT	231	Microwave	3

## REGIONALLY DETERMINED CORE (12 Credits)

ELT	106	Digital Applications	4
ELT	202	Microprocessors	4
ELT	228	Communications Electronics	3
ELT	288.01	Special Topics in Solid State	1

TOTAL CREDITS 66

\* Accredited by the Accreditation Board of the National Association of Industrial Technology (NAIT).

# Hospitality Administration

The Hospitality Administration program emphasizes the techniques of such hospitality leaders as Ritz, Escoffer, Statler, Hilton, and Marriott. By choosing a specialty area, students begin building leadership skills for the profession of welcoming and serving guests. The hospitality programs offered by Ivy Tech produce graduates who can perform well in the hospitality industry.

Specialties are available in baking and pastry arts, catering, culinary arts, food service (technical certificate only), and hotel and restaurant administration. A two-year program requiring 60-66 credits leads to an Associate in Applied Science degree. Technical certificates and career development certificates are also available.

## Associate in Applied Science (AAS) — Hospitality Administration / Baking and Pastry Arts Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
PSY	101	Introduction to Psychology	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

HOS	101	Sanitation and First Aid	3
HOS	102	Basic Foods Theory and Skills	3
HOS	104	Nutrition	3
HOS	109	Hospitality Purchasing	2
HOS	201	Hospitality Organization and Human Resource Management	3
HOS	203	Menu, Design, and Layout	2
HOS	204	Food and Beverage Cost Control	2

### SPECIALTY CORE (29 Credits)

BKR	101	Yeast Raised Breads I	3
BKR	102	Plasticized Sweet Dough	3
BKR	103	Internship/Baking Science	3
BKR	201	Cakes, Icings, and Fillings	3
BKR	202	Classical Cake Decoration	3
BKR	204	Externship	3
HOS	103	Soups, Stocks, and Sauces	2
HOS	105	Introduction to Baking	3
HOS	106	Pantry and Breakfast	3
HOS	207	Classical Pastries and Chocolates	3

TOTAL CREDITS 65

## Associate in Applied Science (AAS) — Hospitality Administration / Culinary Arts Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
PSY	101	Introduction to Psychology	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

HOS	101	Sanitation and First Aid	3
HOS	102	Basic Foods Theory and Skills	3
HOS	104	Nutrition	3
HOS	109	Hospitality Purchasing	2
HOS	201	Hospitality Organization and Human Resource Management	3
HOS	203	Menu, Design, and Layout	2
HOS	204	Food and Beverage Cost Control	2

### SPECIALTY CORE (30 Credits)

CUL	110	Meat Cutting	2
CUL	204	Classical Pastries	3
CUL	206	Externship/Internship	3
CUL	207	Classical Cuisines	3
CUL	212	Fish and Seafood	2
HOS	103	Soups, Stocks, and Sauces	2
HOS	105	Introduction to Baking	3
HOS	106	Pantry and Breakfast	3
HOS	107	Hospitality Computers OR	
CIS	101	Introduction to Microcomputers	3
HOS	108	Table Service	3
HOS	202	Garde Manger	3

TOTAL CREDITS 66

## Associate in Applied Science (AAS) — Hospitality Administration / Hotel and Restaurant Administration Specialty

### GENERAL EDUCATION CORE (18 Credits)

COM	101	Fundamentals of Public Speaking	3
ECN	101	Economic Fundamentals	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
PSY	101	Introduction to Psychology	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

HOS	101	Sanitation and First Aid	3
HOS	102	Basic Foods Theory and Skills	3
HOS	104	Nutrition	3
HOS	109	Hospitality Purchasing	2
HOS	201	Hospitality Organization and Human Resource Management	3
HOS	203	Menu, Design, and Layout	2
HOS	204	Food and Beverage Cost Control	2

### SPECIALTY CORE (30 Credits)

ACC	101	Accounting Principles I	3
HOS	107	Hospitality Computers	3
HOS	108	Table Service	3
HOS	114	Hospitality Organization and Administration	3
HOS	205	Food & Beverage Cost Control Applications	1
HOS	214	Hospitality Law & Security	3
HOS	216	Hospitality Marketing & Group Sales	3
HRM	201	Food & Beverage Management	2
HRM	202	Front Office	3
HRM	203	Practicum	3
HRM	206	Housekeeping	3

TOTAL CREDITS 66

## Career Certificate — Hospitality Administration / Institutional Food Management

### CAREER CERTIFICATE CORE (24 Credits)

HOS	101	Sanitation and First Aid	3
HOS	102	Basic Foods Theory and Skills	3
HOS	104	Nutrition	3
HOS	109	Hospitality Purchasing	2
HOS	114	Hospitality Organization and Administration	3
HOS	201	Hospitality Organization and Human Resource Management	3
HRM	203	Practicum - IFM	3
HRM	215	Therapeutic Nutrition	3
HRM	288	Spreadsheets for Foodservice Operators	1

TOTAL CREDITS 24

# Industrial Technology

The Industrial Technology Program is a discipline devoted to the development of skills necessary for the installation, operation and maintenance of industrial equipment and systems. The curriculum is broad-based and offers a diversity of specialties, but focuses on the integration of each area as used in systemic applications. This requires proficiency in mathematics, communication, physics and basic computer skills, as well as the technical subject matter.

In laboratory applications of classroom study, each student uses the tools and instruments associated with the practice of the industrial technology specialty including volt-ohm meters, leak detectors, sonic diagnostic tools, pressure and level testing devices, preventive maintenance software programs, welding and brazing equipment, metallurgical testing instruments, hand tools, and electronic and hand precision measuring devices. Safety equipment and the safe use of tools and materials are integrated into each course in the curriculum.

Associate in Applied Science degrees require 61-64 credits in industrial technology. Specialties are available in heating, ventilation and air conditioning, industrial maintenance, and welding. Technical certificates and career development certificates are available.

## Associate in Applied Science (AAS) — Industrial Technology / Heating, Ventilation and Air Conditioning Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	110	Technical Physics	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

IDS	102	Introduction to Print Reading	3
IDS	103	Motors and Motor Controls	3
IDS	114	Introductory Welding	3
QSC	101	Quality Control Concepts & Techniques I	3
TEC	104	Computer Fundamentals for Technology	3
TEC	113	Basic Electricity	3

### SPECIALTY CORE (15 Credits)

HEA	101	Heating Fundamentals	3
HEA	103	Air Conditioning and Refrigeration I	3
HEA	104	Heating Service	3
HEA	106	Air Conditioning and Refrigeration II	3
HEA	202	Electrical Circuits and Controls	3

### REGIONALLY DETERMINED CORE

(12 Credits)

HEA	201	Cooling Service	3
HEA	205	Heat Pump Service	3
HEA	212	Advanced HVAC Controls	3
HEA	220	Air Distribution Systems	3

TOTAL CREDITS

64

## Technical Certificate (TC) — Industrial Technology / Heating, Ventilation and Air Conditioning Specialty

### GENERAL EDUCATION CORE (6 Credits)

COM	102	Introduction to Interpersonal Communications	3
ELECTIVE:		Mathematics/Social Sciences/ Life/Physical Science	3

### TECHNICAL CORE (3 Credits)

TEC	113	Basic Electricity	3
-----	-----	-------------------	---

### SPECIALTY CORE (6 Credits)

HEA	101	Heating Fundamentals	3
HEA	103	Air Conditioning and Refrigeration I	3

### REGIONALLY DETERMINED CORE

(24 Credits)

HEA	104	Heating Service	3
HEA	106	Air Conditioning & Refrigeration II	3
HEA	107	Duct Fabrication	3
HEA	201	Cooling Service	3
HEA	202	Electrical Circuits and Controls	3
HEA	205	Heat Pump Service	3
IDS	103	Motors and Motor Controls	3
TEC	104	Computer Fundamentals for Technology	3

TOTAL CREDITS

39

## Associate in Applied Science (AAS) — Industrial Technology / Industrial Maintenance Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	110	Technical Physics	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

IDS	102	Introduction to Print Reading	3
IDS	103	Motors and Motor Controls	3
IDS	114	Introductory Welding	3
QSC	101	Quality Control Concepts & Techniques I	3
TEC	104	Computer Fundamentals for Technology	3
TEC	113	Basic Electricity	3

### SPECIALTY CORE (15 Credits)

AMT	201	Manufacturing Systems Control	3
IDS	104	Fluid Power Basics	3
IMT	201	Fluid Power Systems	3
IMT	203	Machine Maintenance/ Installation	3
IMT	207	Electrical Circuits	3

### REGIONALLY DETERMINED CORE (12 Credits)

IMT	105	Heating and Air Conditioning Basics	3
IMT	107	Preventative Maintenance	3
IMT	210	Pumps	3

Students should select 3 credits from the  
following courses:

AMT	102	Introduction to Robotics	3
IMT	106	Millwright I	3

TOTAL CREDITS 64

## Technical Certificate (TC) — Industrial Technology / Welding Specialty

### GENERAL EDUCATION CORE (6 Credits)

COM	102	Introduction to Interpersonal Communications	3
ELECTIVE:		Mathematics/Social Sciences/Life/ Physical Science	3

### TECHNICAL CORE (3 Credits)

TEC	113	Basic Electricity	3
-----	-----	-------------------	---

### SPECIALTY CORE (6 Credits)

WLD	108	Shielded Metal Arc Welding I	3
WLD	207	Gas Metal Arc (MIG) Welding	3

### REGIONALLY DETERMINED CORE (24 Credits)

IDS	102	Introduction to Print Reading	3
WLD	109	Oxyacetylene Gas Welding and Cutting	3
WLD	110	Welding Fabrication	3
WLD	120	Metallurgy Fundamentals	3
WLD	203	Pipe Welding	3
WLD	206	Shielded Metal Arc Welding II	3
WLD	208	Gas Tungsten Arc (TIG) Welding	3
WLD	209	Welding Certification	3

TOTAL CREDITS 39

# Manufacturing Technology

The Manufacturing Technology Program is a multi-disciplinary program designed to prepare students for technician-level positions. Specialty areas allow students to choose an emphasis in quality assurance, computer-integrated manufacturing, computer-aided design, or computer numerical control. Graduates are prepared to perform many facets of manufacturing including set-up, troubleshooting, processing and quality control.

Skills are acquired through lectures, demonstrations, and hands-on experiences. Lab activities include the use of modern equipment and techniques currently found in industry. This provides a foundation for any graduate to enter the workforce and continue skill enhancement.

Associate in Applied Science degrees require 61-64 credits in Manufacturing Technology.

## Associate in Applied Science (AAS) — Manufacturing Technology / Computer Integrated Manufacturing (CIM) Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

IDS	104	Fluid Power Basics	3
QSC	101	Quality Control Concepts & Techniques I	3
TEC	101	Manufacturing Processes	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3
TEC	113	Basic Electricity	3

### SPECIALTY CORE (15 Credits)

AMT	102	Introduction to Robotics	3
AMT	201	Manufacturing Systems Control	3
AMT	202	Work Cell Design and Integration	3
AMT	203	Automation Electronics	3
AMT	205	Automated Manufacturing Systems	3

### REGIONALLY DETERMINED CORE (12 Credits)

AMT	288.01	Special Topics	2
DSN	103	CAD Fundamentals	3
ELT	103	Digital Principles	4
MTT	208	CNC Programming I	3

TOTAL CREDITS 64

## Associate in Applied Science (AAS) — Manufacturing Technology / Computer Aided Design and Manufacturing (CAD/ CAM) Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

IDS	104	Fluid Power Basics	3
QSC	101	Quality Control Concepts & Techniques I	3
TEC	101	Manufacturing Processes	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3
TEC	113	Basic Electricity	3

### SPECIALTY CORE (15 Credits)

DSN	103	CAD Fundamentals	3
MTT	106	Advanced Print Interpretation	3
MTT	208	CNC Programming I	3
MTT	220	CAD/CAM I	3
MTT	221	CAD/CAM II	3

### REGIONALLY DETERMINED CORE (12 Credits)

MTT	102	Turning Processes I	3
MTT	103	Milling Processes I	3
MTT	204	Abrasive Processes	3
MTT	209	CNC Programming II	3

TOTAL CREDITS 64

## Associate in Applied Science (AAS) — Manufacturing Technology / Quality Assurance Specialty

### GENERAL EDUCATION CORE (19 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
MAT	121	Geometry/Trigonometry	3
PHY	101	Physics I	4
ELECTIVE:		Humanities/Social Sciences	3

### TECHNICAL CORE (18 Credits)

IDS	104	Fluid Power Basics	3
QSC	101	Quality Control Concepts & Techniques I	3
TEC	101	Manufacturing Processes	3
TEC	102	Technical Graphics	3
TEC	104	Computer Fundamentals for Technology	3
TEC	113	Basic Electricity	3

### SPECIALTY CORE (12 Credits)

QSC	102	Statistical Process Control	3
QSC	201	Advanced Statistical Process Control	3
QSC	202	Quality Control Concepts & Techniques II	3
QSC	204	Total Quality Management	3

### REGIONALLY DETERMINED CORE

(12 Credits)

CHM	101	Chemistry I	3
DSN	103	CAD Fundamentals	3
QSC	203	Metrology	3
PST	121	Industrial Safety	3

TOTAL CREDITS 61

## Technical Certificate (TC) — Manufacturing Technology / Computer Numerical Control (CNC) Specialty

### GENERAL EDUCATION CORE (6 Credits)

COM	102	Introduction to Interpersonal Relations	3
MAT	111	Intermediate Algebra	3

### TECHNICAL CORE (3 Credits)

TEC	104	Computer Fundamentals for Technology	3
-----	-----	--------------------------------------	---

### SPECIALTY CORE (6 Credits)

MTT	208	CNC Programming I	3
MTT	209	CNC Programming II	3

### REGIONALLY DETERMINED CORE

(24 Credits)

MAT	121	Geometry/Trigonometry	3
MTT	102	Turning Processes I	3
MTT	103	Milling Processes I	3
MTT	106	Advanced Print Interpretation	3
MTT	204	Abrasive Processes	3
MTT	210	Interactive CNC	3
QSC	203	Metrology	3
TEC	102	Technical Graphics	3

TOTAL CREDITS

# Paralegal Technology

Recognizing the demand for trained paralegals, Ivy Tech has shaped a curriculum with input from attorneys and other professionals associated with the legal field. The advisors offer Ivy Tech the opportunity to establish the qualifications necessary for success in the paralegal field.

Ivy Tech's program provides knowledgeable paralegal professionals ready for an exciting career. The duties of trained paralegals can range from research and writing to interviewing and investigations. As examples, paralegals can be found performing legal research, drafting legal correspondence and legal pleadings, interviewing clients and witnesses, or managing trial documents and exhibits.

Ivy Tech training provides students with the variety of skills necessary to succeed in this career. The curriculum emphasizes written and oral communication skills and provides in-class opportunities for technical skill development. Courses are taught by attorneys who are selected based upon their experience in the subject matter, as well as their familiarity with the function of paralegals as part of the legal team.

A two-year program requiring 60 credits leads to an Associate in Applied Science degree. The complete Paralegal Program is offered in Indianapolis, Ft. Wayne, and Gary. Other campuses may offer a limited number of paralegal courses.

## Associate in Applied Science (AAS) — Paralegal Technology

### GENERAL EDUCATION CORE (18 Credits)

BIO	101	Biology	3
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
ENG	112	Exposition and Persuasion	3
MAT	110	Contemporary College Mathematics OR	
MAT	111	Intermediate Algebra	3
XXX	XXX	Humanities/Social Sciences Elective	3

### TECHNICAL CORE (18 Credits)

ACC	101	Accounting Principles I	3
BUS	101	Introduction to Business	3
CIS	101	Introduction to Microcomputers	3
LEG	101	Introduction to Paralegal Studies	3
LEG	102	Legal Research and Writing	3
LEG	103	Civil Procedures	3

### SPECIALTY CORE (12 Credits)

LEG	106	Claims Investigation	3
LEG	202	Litigation	3
LEG	203	Law Office Management and Technology	3
LEG	204	Advanced Legal Writing	3

### REGIONALLY DETERMINED CORE

#### Choose four (12 Credits)

AOT	103	Word Processing Concepts	3
AOT	116	Business Communications	3
CIS	207	Database Management	3
CIS	208	Electronic Spreadsheets	3
LEG	104	Torts	3
LEG	105	Business Associations	3
LEG	107	Contracts	3
LEG	108	Property Law	3
LEG	109	Family Law	3
LEG	110	Wills, Trusts, and Probates	3
LEG	111	Criminal Law	3
LEG	112	Bankruptcy Law	3

TOTAL CREDITS 60

# Public Safety

The Public Safety Technology Program is designed to meet the ongoing needs of municipalities, students, businesses, and industries. The program develops technical skills, general knowledge, critical thinking, and problem solving abilities. Broad-based technical skills and critical thinking processes assist students in adapting to changes in the work environment and promoting successful advancement on the job. Additionally, the program prepares graduates to transfer to baccalaureate degree-granting institutions if they wish to continue their education.

Specialty areas allow students to choose an emphasis in environmental care, fire science, hazardous materials, and public administration. Associate in Applied Science degrees require 60-63 credits.

## Associate in Applied Science (AAS) — Public Safety / Fire Science Specialty

### GENERAL EDUCATION CORE (18 Credits)

CHM	101	Chemistry I	3
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
POL	101	Introduction to American Government and Politics	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

PST	120	First Responder	3
PST	121	Industrial Safety & Loss Prevention	3
PST	220	Incident Management System	3
PST	221	Design & Planning for Prevention & Protection	3
TEC	104	Computer Fundamentals for Technology	3
TEC	106	Hazardous Materials & Control	3

### SPECIALTY CORE (15 Credits)

AFS	102	Fire Apparatus & Equipment	3
AFS	103	Strategy and Tactics	3
AFS	201	Fire Protection Systems	3
AFS	202	Fire Service Management	4
AFS	204	Fire Service Hydraulics	3

### REGIONALLY DETERMINED CORE (12 Credits)

AFS	101	Fire Technology	3
AFS	105	Fire and Arson Investigation	3
AFS	108	Fire Prevention/Inspection	3
AFS	109	Fire Department Specifications	3

TOTAL CREDITS 63

## Associate in Applied Science (AAS) — Public Safety / Environmental Care Specialty

### GENERAL EDUCATION CORE (18 Credits)

CHM	101	Chemistry I	3
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
POL	101	Introduction to American Government and Politics	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

PST	120	First Responder	3
PST	121	Industrial Safety & Loss Prevention	3
PST	220	Incident Management System	3
PST	221	Design & Planning for Prevention & Protection	3
TEC	104	Computer Fundamentals for Technology	3
TEC	106	Hazardous Materials & Control	3

### SPECIALTY CORE (15 Credits)

BIO	111	Microbiology	3
HMT	200	Environmental Protection Agency (EPA) Regulations	3
ILT	101	Industrial Lab Techniques	3
QSC	101	Quality Control Concepts & Techniques I	3
TEC	113	Basic Electricity	3

### REGIONALLY DETERMINED CORE (12 Credits)

ENV	104	Plant Operations-Sanitary	3
ENV	208	Plant Operations-Industrial	3
ILT	288.01	Advanced Municipal Wastewater Treatment	3
		Elective course in General Education	3

TOTAL CREDITS 63

## Associate in Applied Science (AAS) — Public Safety / Hazardous Materials Specialty

### GENERAL EDUCATION CORE (18 Credits)

CHM	101	Chemistry I	3
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
POL	101	Introduction to American Government and Politics	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

PST	120	First Responder	3
PST	121	Industrial Safety & Loss Prevention	3
PST	220	Incident Management System	3
PST	221	Design & Planning for Prevention & Protection	3
TEC	104	Computer Fundamentals for Technology	3
TEC	106	Hazardous Materials & Control	3

### SPECIALTY CORE (12 Credits)

HMT	100	OSHA Regulations	3
HMT	120	Hazard Communication Standard	3
HMT	200	Environmental Protection Agency (EPA) Regulations	3
HMT	220	Hazardous Materials Recovery, Incineration and Disposal	3

### REGIONALLY DETERMINED CORE (12 Credits)

HMT	104	HAZMAT Health Effects	3
HMT	201	Contingency Planning	3
HMT	203	Sampling Procedures	3
HMT	205	DOT Regulations	3

TOTAL CREDITS 60

## Associate in Applied Science (AAS) — Public Safety / Public Administration Specialty

### GENERAL EDUCATION CORE (18 Credits)

CHM	101	Chemistry I	3
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
POL	101	Introduction to American Government and Politics	3
SCI	111	Physical Science	3

### TECHNICAL CORE (18 Credits)

PST	120	First Responder	3
PST	121	Industrial Safety & Loss Prevention	3
PST	220	Incident Management System	3
PST	221	Design & Planning for Prevention & Protection	3
TEC	104	Computer Fundamentals for Technology	3
TEC	106	Hazardous Materials & Control	3

### SPECIALTY CORE (12 Credits)

BUS	105	Principles of Management	3
BUS	208	Organizational Behavior	3
SUP	102	Techniques of Supervision	3
SUP	224	Operations Management	3

### REGIONALLY DETERMINED CORE (12 Credits)

ACC	101	Accounting Principles	3
AFS	202	Fire Service Management	3
PST	288.01	Public Administration	3
PST	288.02	Internship	3

Total credits 60

# Associate in Science Nursing (ASN)

Ivy Tech State College - Central Indiana is approved by the Indiana Commission for Higher Education to offer a two-year generic Associate of Science (AS) nursing program. The program is also accredited by the National League of Nursing. Graduates are eligible to write the NCLEX-RN examination to become Registered Nurses. This program accommodates both students interested in nursing as a career and Licensed Practical Nurses choosing to continue their nursing education.

## ADMISSION CRITERIA

### FOR COLLEGE ADMISSION:

- Certificate of high school graduation or GED
- SAT or ACT scores\* or College Assessment\*

### FOR ASN ADMISSION:

- PSB Nursing School Aptitude Test
- \* Test may be waived by college transcript with grades of "C" or better within the past 10 years for required science courses.

### FOR ALL NURSING STUDENTS:

- Physical health form and immunizations completed prior to registration for any clinical course.

## Associate in Science / Nursing (ASN)

### General Education Courses (30 Credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3
BIO	111	General Microbiology	3
BIO	112	General Microbiology II	3
COM	101	Fundamentals of Public Speaking OR	
COM	102	Intro to Interpersonal Communication	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra	3
PSY	101	Intro to Psychology	3
ANP	201	Advanced Human Physiology	4
PSY	201	Lifespan Development	3

### Technical Core Courses (40 Credits)

NUR	150	Nursing & Universal Needs	4
NUR	151	Nursing & Universal Needs Practicum	4
NUR	152	Nursing Related to Health Deviation I	5
NUR	153	Nursing Related to Health Deviation I Practicum	5
NUR	154	Pharmacotherapeutics	2
NUR	250	Nursing Related to Health Deviation II	5
NUR	251	Nursing Related to Health Deviation II Practicum	5
NUR	252	Nursing Related to Developmental Needs	4
NUR	253	Nursing Related to Developmental Needs Practicum	4
NUR	254	Professional Nursing Issues	2

Total Credits 70

# Child Development

The Child Development Program focuses on early childhood growth and development, including adult-child relationships. Emphasis is placed on the development of skills and techniques for providing appropriate environments and care for young children. Instruction is provided in the physical, emotional, social, and cognitive areas of early childhood. The training is appropriate for candidates seeking the Child Development Associate (CDA) credential. The student develops competencies through classroom instruction, observation, and participation in early childhood settings. Employment opportunities include: Day Care, Nursery School, Head Start, Family Day Care, Pediatrics Setting, Nanny Care, and School Child Care.

Ivy Tech State College - Central Indiana has an on-campus Child Development Center to meet the need of adult students, College staff and faculty, and locally employed parents and guardians. This licensed center provides on-site training opportunities for practicum students in the Child Development and other Health and Human Services programs. This model facility is licensed to serve 60 children, ages 2 to 12, from 6:30 a.m. to 10:00 p.m., Monday through Thursday and 6:30 to 6 p.m. on Friday. The center is open to visitors interested in either the Child Development Program or the Child Development Center services except during naptime, which is 12:30 to 2:30 p.m. daily. Visitors check with the Center Manager upon arrival.

## Associate in Science Degree (AS) / Child Development

### AS/General Education Requirements

(24 Credits)

COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
ENG	112	Exposition and Persuasion	3
MAT	110	Contemporary College Math OR	
MAT	111	Intermediate Algebra	3
POL	101	Intro to American Government	3
PSY	101	Introduction to Psychology	3
SOC	111	Introduction to Sociology	3
BIO	101	Introductory Biology OR	
SCI	111	Physical Science	3

### AS/Broad Technical Core Courses (18 Credits)

CHD	121	Introduction to Early Childhood Profession	3
CHD	122	Child Growth and Development	3
CHD	123	Health, Safety and Nutrition	3
CHD	124	Developmental and Cultural Awareness	3
CHD	209	Families in Transition	3
CHD	221	Emerging Literacy	3

### AS/Specialty Core (12 Credits)

CHD	125	Curriculum in the Creative Arts	3
CHD	128	Practicum I	2
CHD	129	Practicum II	2
CHD	131	Seminar in Guidance Techniques	2

CHD	225	Cognitive Curriculum	3
AS/Regionally Core (12 Credits)			
CHD	206	Early Child Administration	3
CHD	230	Practicum III	4
CHD	231	Seminar II - Issues in E.C.E.	2
CHD	XXX	Regionally Determined	3
Total Credits			66

## Technical Certificate (TC) / Child Development

### TC/General Education Core Courses

(6 Credits)

ENG	111	English Composition	3
SOC	111	Intro to Sociology OR	
PSY	101	Intro to Psychology	3

### TC/Broad Technical Core (24 Credits)

CHD	121	Intro to the Early Childhood Profession	3
CHD	122	Child Growth and Development	3
CHD	123	Health, Safety and Nutrition	3
CHD	124	Developmental and Cultural Awareness	3
CHD	125	Curriculum in the Creative Arts	3
CHD	128	Practicum I	2
CHD	129	Practicum II	2
CHD	131	Seminar in Guidance Techniques	2
CHD	221	Emerging Literacy	3

Total Credits			30
---------------	--	--	----

# Human Services

The Human Services program offers students the opportunity to become Human Services Generalists or to concentrate in the areas of Substance Abuse, Gerontology, Mental Health, or Criminal Justice.

As a Human Services professional, one reaches out to individuals, to families, and to communities. The Human Services program provides the broad understanding to help others meet their psychological, social, and environmental needs. The Human Services Generalist may find employment in a variety of settings.

Those who study Human Services with a focus on Substance Abuse may find positions in substance abuse centers (residential, detox, and hospitals) as counselors or residents-in-training. (The program is certified by Indiana Counselors Association on Alcohol Abuse, ICAADA.) Those who focus on Gerontology may find jobs in adult day care centers, senior citizens centers and extended care facilities. Those who focus on Criminal Justice may want to work in probation or parole but will need to continue their education. Those who focus in the area of Mental Health may find employment in group homes and community health centers.

Program objectives include training the entry-level worker, providing education and training to upgrade the skills and knowledge of those currently employed, and providing development and enhancement.

The Associate in Applied Science degree requires 62 credits.

Criminal Justice Specialty  
Substance Abuse Specialty

Mental Health Specialty  
Generalist Specialty

Gerontology Specialty

## Associate in Applied Science (AAS) — Human Services

### General Education Courses (18 Credits)

BIO	101	Introductory Biology OR	
SCI	111	Physical Science	3
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
MAT	110	Contemporary College Math OR	
MAT	111	Intermediate Algebra	3
POL	101	Intro to American Government/Politics	3
PSY	101	Introduction to Psychology OR	
SOC	111	Introduction to Sociology	3

### Technical Core Courses (18 Credits)

HMS	101	Introduction to Human Services	3
HMS	102	Helping Relationship Techniques	3
HMS	103	Interviewing and Assessment	3
HMS	205	Behavioral/Reality Techniques	3
HMS	206	Group Process and Skills	3
HMS	207	Program Planning/Policy Issues	3

### Regional Courses

### Internships and Seminars (14 Credits)

HMS	201	Internship I	4
HMS	203	Internship Seminar I	3
HMS	202	Internship II	4
HMS	204	Internship Seminar II	3

### Generalist Specialty (12 Credits)

CIS	101	Introduction to Microcomputers	3
PSY	201	Lifespan Development	3

HMS	XXX	Electives	3
HMS	XXX	Electives	3

### Gerontology Specialty (12 Credits)

HMS	108	Psychology of Aging	3
HMS	111	Long-Term Care Activity Director OR	
HMS	114	Social Services In Long-Term Care OR	
HMS	140	Loss and Grief OR	
CIS	101	Introduction to Microcomputers	3
HMS	120	Social Aspects of Aging	3
HMS	130	Health and Aging	3

### Criminal Justice Specialty (12 Credits)

HMS	105	Criminal Justice Systems	3
HMS	215	Juvenile Delinquency	3
PSY	205	Abnormal Psychology	3
HMS	240	Rehab Process: Probation and Parole	3

### Mental Health Specialty (12 Credits)

HMS	104	Crisis Intervention	3
HMS	220	Legal Aspects	3
PSY	205	Abnormal Psychology	3
PSY	201	Lifespan Development	3

### Substance Abuse Specialty (12 Credits)

HMS	113	Problems of Substance Abuse in Society	3
HMS	208	Treatment Models of Substance Abuse	3
HMS	209	Counseling Issues	3
HMS	210	Codependency	3

Total Credits 62

# Medical Assistant

The graduate of the Medical Assistant Program is a professional multi-skilled health care provider dedicated to assisting in patient care management in ambulatory care settings. The practitioner performs administrative and clinical duties and may manage emergency situations, facilities, and/or personnel. Competence in the field also requires that a Medical Assistant display professionalism, communicate effectively, and provide instruction to patients. A required externship provides valuable on-the-job experience.

- The program is accredited by the American Association of Medical Assistants and the Commission on Accreditation of Allied Health Education Programs (CAAHEP).
- Graduates of the Medical Assistant Program will be prepared to take the Certification Examination of the American Association of Medical Assistants (AAMA) and the American Medical Association (AMA) to obtain CMA status that is recognized nationally.
- The two-year Associate in Applied Science program requires 63 credits for completion. The Technical Certificate requires 30-48 credits.
- Salary range for Medical Assistants is from \$7.50 to \$14.50 per hour depending upon education, experience, and specialty area.
- The Medical Assistant Program works in cooperation with private physicians' offices, health maintenance organizations, and Immediate Care Centers to provide clinical and administrative experiences for students.
- A one-year part-time limited radiology curriculum is available to medical assistant graduates leading to an opportunity to sit for the IDH Limited General Certificate Examination in radiography.
- Passing this exam qualifies the Limited General Technologist to perform general radiography in non-hospital settings. The salary range is \$9.50 to \$14.50 per hour.
- Note: Evening classes are available. All but 4-5 classes can be completed in the evening.
- Must type 30 words per minute with fewer than 5 errors for admission to the program.

## Associate in Applied Science Degree (AAS) / Medical Assistant

### General Education Requirements (18 Credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3
COM	102	Interpersonal Communication	3
ENG	111	English Composition	3
MAT	XXX	Math Elective	3
XXX	XXX	Humanities/Social Elective	3

### Broad Technical Core Courses (18 Credits)

HHS	101	Medical Terminology	3
HHS	102	Medical Law and Ethics	2
MEA	102	First Aid and CPR	2
MEA	113	Pharmacology	3
MEA	131	Medical Financial Management	3
MEA	132	Computer Concepts in Medical Office	2
MEA	203	Disease Conditions	3

### Specialty Core Courses

(21 Credits)

MEA	114	M.A. Lab Techniques	3
MEA	115	Medical Insurance	2
MEA	120	M.A. Clinical Extern	3
MEA	121	M.A. Administrative Extern	3
MEA	130	M.A. Administrative	2
MEA	133	Clinical Theory	3
MEA	134	Clinical Skills Lab	2
MEA	135	Medical Word Processing/ Transcription	3

### Regional Electives

(6 Credits)

*	XXX	XXX	Administrative Elective	3
*	XXX	XXX	Clinical Elective	3

Total Credits 63

\* per approval of program chair

## Technical Certificate (TC) / Medical Assistant

### General Education Requirements (6 Credits)

COM	102	Introduction to Interpersonal Communications	3
XXX	XXX	Sci/Mat/Hum Elective	3

### Technical Core Courses (3 Credits)

HHS	101	Medical Terminology	3
-----	-----	---------------------	---

### OPTION 1

### Administrative Specialty Core Courses (6 Credits)

HHS	102	Medical Law and Ethics	2
MEA	130	M.A. Administrative	2
MEA	132	Computer Concepts in the Medical Office	2

### Regionally Determined Courses (15 Credits)

Total Administrative Specialty Credits (total includes the 6 General Education Credits and the 3 Technical Core Credits) 30

### OPTION 2

### Clinical Specialty Core Courses (6 Credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3

### Regionally Determined Courses (15 Credits)

Total Clinical Specialty Credits (total includes the 6 General Education Credits and the 3 Technical Core Credits) 30

### Generalist Specialty Core Courses (39 Credits)

ANP	102	Anatomy and Physiology II	3
ENG	111	English Composition	3
HHS	102	Medical Law and Ethics	2
MEA	102	First Aid and CPR	2
MEA	113	Pharmacology	3
MEA	114	MA Lab Techniques	3
MEA	115	Medical Insurance	2
MEA	120	M.A. Clinical Extern	3
MEA	121	M.A. Administrative Extern	3
MEA	130	M.A. Administrative	2
MEA	131	Medical Financial Management	3
MEA	132	Computer Concepts in the Medical Office	2
MEA	133	Clinical Theory	3
MEA	134	Clinical Skills Lab	2
MEA	135	Medical Word Processing/Transcription	3

Total Generalist Specialty Credits (total includes the 6 General Education Credits and the 3 Technical Core Credits) 48

### Pharmacy Technician Specialty Core Courses (21 Credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3
HHS	102	Medical Law and Ethics	2
MEA	113	Pharmacology	3
MEA	151	Pharmacy Technician I	3
MEA	152	Pharmacy Technician II	3
MEA	153	Pharmacy Technician Adm.	2
MEA	154	Pharmacy Externship	2

Total Pharmacy Technician Specialty Credits (total includes the 6 General Education Credits and the 3 Technical Core Credits) 30

All but three of these courses are available at the Region 8 campus. Those are available within a one-hour commute on other campuses.

# Occupational Therapy Assistant

Occupational therapy directs an individual's participation in selected tasks to restore, reinforce and enhance performance, facilitate learning of those skills and functions essential for adaption and productivity, diminish or correct pathology, and promote and maintain health. An occupational therapy assistant provides service to individuals whose abilities to cope with living tasks have been threatened or impaired by developmental deficits, the aging process, physical injury or illness, or psychological disability. The profession serves a diverse population in a variety of settings such as hospitals and clinics, rehabilitation facilities, long-term care facilities, extended-care facilities, sheltered workshops, schools and camps, private homes and community agencies.

A two-year program requiring 72 credits leads to an Associate in Science degree.

## Associate in Science (AS) / Occupational Therapy Assistant

### General Education Core Courses (31 Credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3
ANP	201	Advanced Human Physiology	4
COM	101	Fundamentals of Public Speaking	3
ENG	111	English Composition	3
HMS	230	Abnormal Psychology	3
MAT	110	Contemporary College Math OR	
MAT	111	Intermediate Algebra	3
PSY	101	Introduction to Psychology	3
PSY	201	Lifespan Development	3
SOC	111	Introduction to Sociology	3

### Technical Core Courses (26 Credits)

OTA	101	Foundations of Occupational Therapy	3
-----	-----	-------------------------------------	---

OTA	102	Kinesiology	2
OTA	103	Medical Conditions in Occupational Therapy	3
OTA	202	Therapeutic Activities	3
OTA	203	Therapeutic Group Activities	3
OTA	204	Psychiatric Conditions in Occupational Therapy	3
OTA	205	COTA in Physical Health	3
OTA	208	COTA and Interactive Model	3
OTA	210	COTA in Mental Health	3

### Specialty Core Courses (15 Credits)

OTA	201	Field Work I - A	1
OTA	206	Assistive Technology and Adaptive Equipment	2
OTA	207	Daily Living Skills	3
OTA	209	Field Work I - B	1
OTA	211	Clinical Transition and Management	4
OTA	212	Field Work II - A	2
OTA	213	Field Work II - B	2

TOTAL CREDITS 72

### OCCUPATIONAL THERAPY ASSISTANT PROGRAM (Not yet accredited)

The Occupational Therapy Assistant Program has initiated accreditation procedures with the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Once accreditation of the program has been obtained, its graduates will be able to sit for the national certification examination for the occupational therapy assistant administered by the American Occupational Therapy Certification Board (AOTCB). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the AOTCB Certification Examination.

# Practical Nursing

The Licensed Practical Nurse is an integral part of the health care team. The Practical Nursing program is a one-year course of study leading to a Technical Certificate. This accredited program prepares the individual to take the state licensure exam to become a Licensed Practical Nurse (LPN). This program is designed for students to gain knowledge and technical skills necessary to appropriately care for patients in a variety of health care settings, such as hospitals, convalescent centers, and physicians' offices. Students learn to administer medications and treatments commonly performed by Licensed Practical Nurses.

The Indianapolis program is accredited by the National League of Nursing (NLN) and approved by the Indiana State Board of Nursing. Clinical courses begin in the fall and spring semester of this twelve-month program that requires two semesters and a twelve-week summer session. The PSB Aptitude Test Practical Nursing is required after Skills Advancement courses (reading, writing, and math) are completed or almost completed. The fee for this test is \$25.00. Applicants are advised to apply six to nine months in advance of desired admission.

The following facilities serve as clinical sites for practical work experiences required in the program:

American Village, Indianapolis  
Beverly Rehab, Indianapolis  
Community South and East in Indianapolis  
Hancock Memorial Hospital, Greenfield  
Riley Hospital for Children  
Regency Place—Greenwood  
Americana Healthcare North  
Cambridge Healthcare  
Carmel Care  
Johnson Memorial Hospital, Franklin  
Lifelines of Indianapolis  
Winona Memorial Hospital  
St. Vincent's Hospital and Health Care Center

Greenwood Village South, Greenwood  
Hendricks Community Hospital, Danville  
Hoosier Village Retirement Center, Indianapolis  
Noblesville Healthcare Center, Noblesville  
Pine Tree Manor, Indianapolis  
Rehabilitation Hospital of Indiana, Indianapolis  
Robin Run Village, Indianapolis  
St. Francis Hospital Center, Beech Grove  
Westminster Village North, Indianapolis  
Westview Hospital, Indianapolis  
Methodist Hospital of Indianapolis  
Wishard Memorial Hospital

The starting salary is \$10.00 to \$13.00 per hour, which can increase up to 25% because of shift differentials and fringe benefits. Applicants should check with local medical facilities to get current salary information.

## Technical Certificate (TC) / Practical Nursing

### General Education Courses (6 Credits)

COM	102	Interpersonal Communication	3
PSY	101	Intro to Psychology	3

### Technical Core Courses (46 credits)

ANP	101	Anatomy and Physiology I	3
ANP	102	Anatomy and Physiology II	3
PNU	114	Nursing Issues and Trends	1
PNU	121	Introduction to Nursing I	4
PNU	122	Introduction to Nursing II	6
PNU	123	Pharmacology	3
PNU	127	Care of the Adult	5
PNU	128	Care of the Adult	5

PNU	129	Care of the Adult	5
PNU	130	Nursing Care of the Older Adult	5
PNU	131	Nursing Care of the Child-Bearing Family	6

Total Technical Certificate Credits 52

### Suggested courses that help develop students for Program Required Courses:

BSA	007	Spelling	1
BSA	065	Introduction to Life Sciences	3
BSA	074	Introduction to Computer Literacy	2
HHS	101	Medical Terminology	3
MEA	212	Phlebotomy	3
BSA	070	Success Skills for Human Services and Health Technologies	3

# Radiologic Technology

The radiologic technologist, specializing in the use of x-rays to create images of the body, is known as a radiographer. A radiologic technologist is a professional who is skilled in the art and science of radiography and patient care related to radiography, and who applies scientific knowledge to solve practical and theoretical problems. Radiologic technologists are in demand in hospitals, medical laboratories, physicians' and dentists' offices and clinics, federal and state health agencies and certain educational institutions.

The program includes courses in the following areas — patient care, radiologic technique, exposure, positioning, protection, radiation physics, radiation biology, and ethics. Clinical practice and supplemental instruction are provided in accredited hospitals. Upon completion of program requirements, graduates are eligible to take the American Registry Examination given by the American Registry of Radiologic Technologists.

During the last four academic periods, 93% of the program graduates passed the American Registry of Radiologic Technologist Examination on their first attempt.

Radiologic Technology is a full-time year-round, two-year program. Students, once accepted, will be at a clinical site three days each week and in the classroom two days each week.

The clinical sites are Bloomington Hospital in Bloomington, Johnson Memorial in Franklin, and Winona Memorial Hospital in Indianapolis.

The starting salary for a Radiologic Technologist is \$11.50 to \$12.50 per hour. This rate does not include the fringe benefits that could increase the base pay as much as 25%.

The program is accredited by the Joint Review Committee on Education in Radiologic Technology.

The Radiologic Technology Program faculty offers a one-year part-time series of courses called Limited General Radiography. These courses were developed by faculty of the two-year Associate Degree program in Radiologic Technology at the request of the Indiana Department of Health (IDH). This series of nine courses totaling 30 credits in Limited General Radiography is the only group of appropriate courses approved by the IDH in Indiana for individuals who work in non-hospital settings. These courses are open to Registered Nurses, Licensed Practical Nurses, Certified Medical Assistants and Medical Assistants who were trained on the job. Qualified individuals interested in this course series must be employed at a facility that is operating an IDH approved X-ray machine. The starting pay for students who successfully complete the course series ranges from \$8.50 to \$12.00 per hour.

## Associate in Applied Science Degree (AAS) / Radiologic Technology

### General Education Requirements (21 Credits)

*ANP	101	Anatomy and Physiology I	3
*ANP	102	Anatomy and Physiology II	3
*CHM	101	Chemistry	3
COM	101	Fundamentals of Public Speaking	3
*ENG	111	English Composition	3
*MAT	111	Intermediate Algebra	3
PSY	101	Introduction to Psychology OR	
*SOC	101	Introduction to Sociology	3

### Technical Core Courses (8 Credits)

*CIS	101	Introduction to Microcomputers	3
*HHS	101	Medical Terminology	3
*HHS	102	Medical Law and Ethics	2

### Specialty Core Courses (55 Credits)

RAD	101	Orientation/Nursing X-ray Technology	4
RAD	102	Principles of Radiographic Exposures I	2

RAD	103	Radiographical Positioning I	3
RAD	104	X-Ray Clinical Education 1	4
RAD	105	Radiographical Positioning II	3
RAD	106	X-Ray Clinical Education 2	4
RAD	107	Radiation Physics	3
RAD	109	Imaging Techniques	2
RAD	201	Radiographic Positioning III	2
RAD	202	X-Ray Clinical Education 3	4
RAD	203	X-Ray Clinical Education 4	4
RAD	204	X-Ray Clinical Education 5	4
RAD	205	Pathology for Radiographic Technologists	2
RAD	206	Radiobiology	3
RAD	207	Radiographic Positioning IV	3
RAD	208	Principles of Radiographic Exposures II	2
RAD	288	Pharmacology	3
RAD	299	General Exam Review	3

Total Credits 84

\*Courses will be reviewed for GPA by the Admissions Committee before consideration for interview.

# Respiratory Care Technology

A respiratory care practitioner is an allied health professional who works under the direction of physicians in the diagnosis, evaluation, treatment, education and care of patients with cardiopulmonary diseases or abnormalities.

A graduate of the Associate of Applied Science program will be eligible to sit for the Entry Level and Advanced Practitioner exams given by the National Board for Respiratory Care (NBRC). Successful exam candidates will be awarded the Registered Respiratory Therapist credential. The program's pass rates for the national exam are far above the national averages.

The two-year Associate of Applied Science degree requires 79 credits for completion.

The Associate Degree program is offered on both a full-time and part-time track. Both tracks require set courses each semester for the duration of the program. Students are accepted into either the full-time program or the part-time program. The full-time program is five semesters in length (18 credits each semester) and starts in the spring semester of each year. The part-time program is nine semesters in length (9 credit hours per semester) and starts in the fall semester each year. Students may start their General Education courses any semester. Students should contact program personnel for specific curriculum and admission information.

Facilities that have collaborated with the College in this program include: Bloomington Hospital, Columbus Regional Hospital, Community Hospital-East, Hendricks County Hospital, Indiana University Medical Center, Methodist Hospital, Riley Hospital for Children, St. Francis Hospital, St. Vincent Hospital, Veteran's Administration Hospital, Winona Memorial Hospital and Wishard Hospital.

## Associate in Applied Science (AAS) — Respiratory Care

### Semester I (18 credits)

ANP	101	Anatomy and Physiology I	3
CHM	101	Chemistry I	3
MAT	111	Intermediate Algebra	3
BIO	111	General Microbiology	3
ENG	111	English Composition: Strategies for Inquiry	3
PSY	101	Introduction to Psychology	3

### Semester II (18 credits)

ANP	102	Anatomy and Physiology II	3
RES	121	Introduction to Respiratory Care	6
RES	122	Therapeutic Modalities	3
RES	123	Cardiopulmonary Physiology	3
RES	124	Clinical Practicum I	3

### Semester III (10 credits)

RES	125	Critical Care I	3
RES	126	Clinical Medicine	3
RES	127	Clinical Practicum II	3
RES	228	Information Systems for Health Care	1

### Semester IV (18 credits)

RES	128	Clinical Practicum III	9
RES	221	Cardiopulmonary Diagnostics	3
RES	222	Critical Care II	3
RES	223	Pharmacology	3

### Semester V (15 credits)

RES	224	Clinical Medicine II	3
RES	225	Emergency Management	3
RES	226	Continuing Care	3
RES	227	Clinical Practicum IV	3
ENG	211	Technical Writing	3

TOTAL CREDITS

## Technical Certificate (TC) — Respiratory Care

### Semester I (15 credits)

ANP	101	Anatomy and Physiology I	3
CHM	101	Chemistry I	3
MAT	111	Intermediate Algebra	3
BIO	111	General Microbiology	3
ENG	111	English Composition: Strategies for Inquiry	3

### Semester II (18 credits)

ANP	102	Anatomy and Physiology II	3
RES	121	Introduction to Respiratory Care	6
RES	122	Therapeutic Modalities	3
RES	123	Cardiopulmonary Physiology	3
RES	124	Clinical Practicum I	3

### Semester III (9 credits)

RES	125	Critical Care I	3
RES	126	Clinical Medicine	3
RES	127	Clinical Practicum II	3

### Semester IV (9 credits)

RES	128	Clinical Practicum III	9
-----	-----	------------------------	---

TOTAL CREDITS 51

# Surgical Technology

The surgical technologist is a highly-skilled member of the surgical team, qualified by didactic and clinical education to provide safe and efficient care to the patient in the operating room. The didactic education consists of courses in Anatomy and Physiology, Microbiology, Pharmacology, Medical Law and Ethics, Surgical Techniques and Surgical Procedures. Closely supervised clinical education is provided in local area hospitals.

The surgical technologist actively participates in surgery by performing scrub and/or circulating duties which include: passing instruments and supplies to the surgical team members, preparing and positioning the patient, operating equipment, assisting the anesthesiologist, and keeping accurate records. Many students complete their General Education courses prior to the clinical. The program is two calendar years in length, requiring 67 credits leading to an Associate in Applied Science Degree.

The program is accredited by the Committee on Allied Health Education and Accreditation with the Joint Review Committee on Education for Surgical Technologists. The full-time program begins in the fall semester each year and includes the spring semester and a twelve-week summer session. The General Education courses can be started any semester. Graduates receive an Associate in Applied Science Degree.

The following facilities have collaborated with the College as clinical sites for practical work experiences required in the program: Indiana University Hospital, Riley Hospital for Children, Community East Hospital, Wishard Memorial Hospital, St. Vincent's Hospital and Health Care Center.

The starting salary is \$9.00 to \$10.50 per hour, which can increase up to 25% because of shift differentials.

## Associate in Applied Science (AAS) — Surgical Technology

### General Education Courses (21 Credits)

ANP	101	Anatomy & Physiology I	3
ANP	102	Anatomy & Physiology II	3
BIO	111	Microbiology	3
COM	102	Intro to Interpersonal Communication	3
ENG	111	English Composition	3
MAT	111	Intermediate Algebra OR	
MAT	110	Contemporary College Mathematics	3
PSY	101	Intro to Psychology OR	
SOC	111	Intro to Sociology	3

### Technical Core Courses (38 Credits)

SUR	101	Surgical Techniques	3
SUR	102	Surgical Procedures 1	3
SUR	103	Fundamentals of Surgical Technology	6
SUR	104	Surgical Procedures 2	6
SUR	105	Clinical Applications 1	9
SUR	106	Surgical Procedures 3	3
SUR	107	Clinical Applications 2	8

### Broad Core Courses (8 Credits)

HHS	101	Medical Terminology	3
HHS	102	Medical Law/Ethics	2
MEA	113	Pharmacology	3

Total Credits 67

Suggested courses that help develop students for required courses. These courses are not required and they do not count toward the program.

BSA	007	Spelling	1
BSA	065	Introduction to Life Sciences	3
BSA	071	Critical Thinking	3
BSA	074	Introduction to Computer Literacy	2
MEA	288	Success Skills for Human Services and Health Technologies	3

# General Education and Support Services

The mission of the General Education and Support Services Division, through a strong General Education Program, is to stimulate the full intellectual, emotional, and social development of each student. General education also undergirds, broadens, and augments the College's technical curriculum. Recognizing its essential value, all Associate degree programs require a minimum of 25% of degree credits in general education. The division also provides a comprehensive skills advancement program, known as ACCESS, which develops basic skills, attitudes and learning processes to assure success in College programs. Additionally, the division provides an integrated system of academic and counseling support services.

## General Education

An Associate degree must prepare students to enter the work force and become full participants in the complex, rapidly evolving multiple environments of American society. The General Education Program provides instruction in mathematics, physical science, communication, and social science, as well as a learning support system of counseling and tutoring, and additional support services.

## Mathematics and Science

Mathematics is an essential skill in meeting the ever-changing needs of our increasingly complex society.

The study of science leads to an understanding of the basic principles of the physical and life processes in our natural world.

The mathematics and sciences program provides program-level mathematics and science courses, including Contemporary Mathematics, Intermediate Algebra, Geometry/Trigonometry, Algebra/Trigonometry, Calculus, Statistics, Finite Math, Physical Science, Technical Physics, Physics, Chemistry, Biology, Microbiology, Anatomy and Physiology, and Advanced Physiology.

## Communication and Social Sciences

Recognizing that language is the foundation for all learning, the communications program encourages the use of language as a creative tool to develop and organize an understanding of self and others. Individuals develop proficiency in process-oriented English Composition, Exposition and Persuasion, Technical Writing, Fundamentals of Public Speaking, and Introduction to Interpersonal Communications.

The study of social science explores the commonality and diversity of human experience in a pluralistic society. Courses are offered in psychology, sociology, political science, economics, and the humanities.

## Skills Advancement ACCESS Program

Developing basic skills, attitudes and learning processes in order that students may enter and be successful in college programs, the ACCESS program is a comprehensive system of services including initial assessment of skills, specialized counseling services, ongoing course placement and classroom and lab instruction in basic reading, writing, mathematics, science and study skills. Additional learning assistance is provided through small-group and one-on-one tutoring and computer-assisted instruction. The ACCESS program also provides Computer Assisted Instruction (CAI) and Interactive Video Disk (IVL) Lab in Room 252A and Macintosh Lab in Room 252B. These two microcomputer labs help students learn concepts and provide students with adequate drill and practice sessions in such areas as the following: reading, writing, grammar, mathematics and science skills, English as a Second Language and study skills. Also available are GED preparation materials, technical vocabulary for the deaf program, word processing application, and a wide range of instructional software. Hours are Monday through Thursday, 8:00 a.m. to 8:30 p.m.; Friday, 8:00 a.m. to 12:00 noon, and Saturday, 9:30 a.m. to 4:00 p.m.

Also available is a Testing Lab that can be used by the entire College. When a student misses a test for a legitimate reason, the instructor can leave that test in the Testing Lab, and the student can take it when it is convenient. The student must have a permission slip from the instructor.

## Special Services

Testing for course placement and admission to Ivy Tech programs is provided free of charge. Included in this session are assessments of reading, writing, science, and mathematics ability. Students who wish to receive credit by testing out of a course should contact the Testing Center for procedures.

Counseling services through the ACCESS program include academic counseling, career assessment and counseling, and personal development counseling. These services are available to students who need supplemental support in order to succeed in their coursework.

The Special Needs Program at Ivy Tech is available to serve any student with a documented disability that may emerge as a barrier to the successful completion of coursework. Academic support and counseling services are provided specifically for students with special needs to enhance their independence and career preparation.

## General Technical Studies Certificate

The General Technical Studies program provides a starting point for students who want to freshen their basic skills, are undecided upon what specific course of study to pursue, are seeking admission into one of the College's selective programs, or are needing an education foundation for a related one- or two-year program.

A one-year program requiring 30 credits leads to a General Technical Studies Certificate in each of the College's two degree-seeking divisions - Business and Technology, and Health and Human Services. Students who earn the Technical Certificate and do not pursue further education could seek employment in areas related to specific courses taken.

See page 67 for General Technical Studies Certificates Information.

## BASIC SKILLS ADVANCEMENT COURSES

### Skills Advancement

BSA	007	Spelling	1
BSA	024	Introduction to College Writing I	3
BSA	025	Introduction to College Writing II	3
BSA	031	Reading Strategies for College I	3
BSA	032	Reading Strategies for College II	3
BSA	044	Mathematics	3
BSA	050	Introductory Algebra	3
BSA	061	Introduction to Chemistry	3
BSA	065	Introduction to Life Sciences	3
BSA	070	College Study Principles	3
BSA	071	Critical Thinking	3
BSA	074	Introduction to Computer Literacy	1
BSA	081	Keyboarding I	1
BSA	082	Keyboarding II	2
BSA	083	Keyboarding III	3
BSA	288	ESL Reading V	3
BSA	288	ESL Listening and Speaking V	3
BSA	288	ESL Grammar V	3
BSA	288	ESL Reading VI	3
BSA	288	ESL Listening and Speaking VI	3
BSA	288	ESL Grammar VI	3

emphasis on student generated topics and multiple drafting.

BSA 025 Introduction to English II

3 Credits

Further skills gained in BSA 024 with emphasis on preparing students for English 101 by helping students expand their control of the writing process.

BSA 031 Reading I

3 Credits

Emphasizes comprehension, vocabulary, and word attack skills beginning at a basic level.

BSA 032 Reading II

3 Credits

Advances (comprehension, vocabulary, and word attack) skills acquired in BSA 031 and further prepares students for program-level courses.

BSA 044 Mathematics

3 Credits

Introduces the basic concepts of algebra while reviewing computational skills.

BSA 050 Introductory Algebra

3 Credits

Reviews basic equations and graphing, and concentrates on algebraic relationships in preparation for intermediate algebra.

BSA 061 Introduction to Chemistry

3 Credits

Introduces basic principles of chemistry and technical vocabulary.

BSA 065 Introduction to Anatomy and Physiology

3 Credits

Studies the basics of the human body as an integrated unit.

BSA 070 College Study Principles

3 Credits

Orients and motivates students for success in college. Develops the skills of textbook-reading, note-taking, and test-taking.

## Basic Skills Advancement Course Descriptions

BSA 007 Spelling

1 Credit

Develops spelling skills by thorough practice in spelling with attention to rules and exceptions.

BSA 024 Introduction to English I

3 Credits

Introduces the student to a process approach to writing with

**BSA 071 Critical Thinking****3 Credits**

Assists students in developing critical thinking strategies and study skills in mathematics.

**BSA 074 Introduction to Computer Literacy****3 Credits**

Introduces basic computer literacy skills development.

**BSA 081 Introduction to Keyboarding I****1 Credit**

Deals with basic keyboarding skills applicable to a typewriter or computer.

**BSA 082 Introduction to Keyboarding II****1 Credit**

Deals with keyboarding skills applicable to a typewriter or computer.

**BSA 083 Introduction to Keyboarding III****2 Credits**

Deals with basic keyboarding skills applicable to a typewriter or computer.

**BSA 288 ESL Reading V****3 Credits**

Emphasizes intensive reading analysis of prose; studies vocabulary in context; develops reading strategies; teaches critical reading skills.

**BSA 288 ESL Reading VI****3 Credits**

Stresses advanced comprehension skills using academic subject areas; focuses on vocabulary expansion, reading interpretation, and critical thinking.

**BSA 288 ESL Listening and Speaking V****3 Credits**

Focuses on listening strategies for understanding natural speech patterns; provides conversational practice with emphasis on American cultural values and behavior; use of idioms.

**BSA 288 ESL Listening and Speaking VI****3 Credits**

Focuses on efficient methods of listening to lectures and conversation; stresses vocabulary development; emphasizes conversation about academic and social topics using appropriate idioms.

**BSA 288 ESL Grammar V****3 Credits**

Focuses on the study of complex sentence structure, understanding the relationship between ideas, and the expression of ideas in conditional sentences.

**BSA 288 ESL Grammar VI****3 Credits**

Focuses on advanced grammatical concepts through contextualized dialogue; examines formal and informal grammatical style.

**General Education****Course Descriptions****Communications**

COM	101	Fundamentals of Public Speaking	3
COM	102	Introduction to Interpersonal Communications	3

**Composition**

ENG	111	English Composition: for Inquiry	3
ENG	112	Exposition and Persuasion	3
ENG	211	Technical Writing	3

**Economics**

ECN	101	Economic Fundamentals	3
ECN	201	Principles of Macroeconomics	3
ECN	202	Principles of Microeconomics	3

**History**

HSY	101	Survey of American History I	3
HSY	102	Survey of American History II	3

**Political Science**

POL	101	Intro. to American Government and Politics	3
-----	-----	--	---

**Psychology**

PSY	101	Introduction to Psychology	3
PSY	201	Lifespan Development	3
PSY	205	Abnormal Psychology	3

**Sociology**

SOC	111	Introduction to Sociology	3
-----	-----	---------------------------	---

**Humanities**

ETH	101	Introduction to Ethics	3
PHL	101	Introduction to Philosophy	3
HUM	101	Survey of Humanities	3

**Mathematics**

MAT	110	Contemporary College Mathematics	3
MAT	111	Intermediate Algebra	3
MAT	115	Statistics	3
MAT	121	Geometry/Trigonometry	3
MAT	131	Algebra/Trigonometry I	3
MAT	132	Algebra/Trigonometry II	3
MAT	135	Finite Math	3
MAT	201	Brief Calculus	3

**Life and Physical Sciences**

ANP	101	Anatomy & Physiology I	3
ANP	102	Anatomy & Physiology II	3
ANP	201	Advanced Physiology	4
BIO	101	Biology	3
BIO	111	Microbiology	3
CHM	101	Chemistry I	3
CHM	102	Chemistry II	3
PHY	101	Physics I	4
PHY	102	Physics II	4
PHY	110	Technical Physics	4
SCI	111	Physical Science	3

## COMMUNICATIONS

### COM 101 Fundamentals of Public Speaking

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or completion of BSA coursework in reading and writing.

Fundamental concepts and skills for effective public speaking; preparation and delivery of informative and persuasive presentations. Includes instructions in use of visual aids and critical listening.

### COM 102 Introduction to Interpersonal Communication

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or completion of BSA coursework in reading and writing.

Focuses on the process of interpersonal communications as a dynamic and complex system of interactions. The course will stress the importance of understanding and applying interpersonal communication theory in work, family, and social relationships.

## COMPOSITION

### ENG 111 English Composition: Strategies for Inquiry

3 Credits

**Prerequisite:** Demonstrated competency in writing skill through appropriate assessment or successful completion of BSA writing coursework.

Provides a foundation in rhetorical principles, communication strategies, and inquiry processes that can be successfully applied in writing situations: personal, academic, or professional. The composing process will be initiated by and integrated with critical reading and thinking.

### ENG 112 Exposition and Persuasion

3 Credits

**Prerequisite:** ENG 111.

Continues the strategies taught in ENG 111 and emphasizes research-based analytic and persuasive writing. Students will complete collaborative and individual projects.

### ENG 211 Technical Writing

3 Credits

**Prerequisite:** ENG 111

Builds on the writing skills taught in ENG 111. Students will demonstrate their ability to prepare technical reports for various purposes using standard research techniques, documentation and formatting as appropriate. Also, a variety of business correspondence will be written. Students will demonstrate both written and oral competencies.

## ECONOMICS

### ECN 101 Economic Fundamentals

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or BSA coursework.

Provides an introduction to the fundamentals of economics and their application to current economic problems.

### ECN 201 Principles of Macroeconomics

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or BS coursework and MAT 111 - Intermediate Algebra.

Develops a conceptual understanding of the forces affecting the level of national income, employment, interest rates, and prices.

### ECN 202 Principles of Microeconomics

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or BSA coursework and MAT 111. Develops an understanding of the process by which the market price mechanism allocates resources and influences individual behavior.

## HISTORY

### HSY 101 Survey of American History

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or completion of BSA coursework in reading and writing.

Covers major themes and events in American history from the discovery era to the Civil War and Reconstruction.

### HSY 102 Survey of American History II

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or completion of BSA coursework in reading and writing.

Covers major themes and events in American history from the Civil War and Reconstruction to the present.

## POLITICAL SCIENCE

### POL 101 Introduction to American Government and Politics

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or BSA coursework.

Introduces the foundations, nature, and dynamics of American government and politics including constitutional foundations, civil liberties and civil rights, Federalism, political parties, public opinion, interest groups, media, nominations, campaigns, elections, the Presidency, the Judiciary, Congress, bureaucracies, and public policy.

## PSYCHOLOGY

### PSY 101 Introduction to Psychology

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or BSA coursework.

Provides a general survey of the science of psychology. Includes the study of research methodology, emotion, biological foundations, learning and cognition, perception, development, personality, abnormal psychology, and social psychology.

### PSY 201 Lifespan Developments

3 Credits

**Prerequisite:** Completion and grade of C or better in PSY 101 or SOC 111.

Covers human development from conception to death, focusing on self as well as others: discussion about time before adolescence and adult years. In addition, relevant research for each period will be covered.

## **PSY 205 Abnormal Psychology**

3 Credits

Examines theories and research related to mental illness as well as etiology, pathology, and treatment methods. Includes descriptions of various disorders and personality problems.

## **SOCIOLOGY**

### **SOC 111 Introduction to Psychology**

3 Credits

**Prerequisite:** Demonstrated competency through appropriate assessment or BSA coursework.

Introduces the students to the science of human society, including fundamental concepts, descriptions, and analysis of society, culture, the socialization process, social institutions, and social change.

## **HUMANITIES**

### **ETH 101 Introduction to Ethics**

3 Credits

**Prerequisite:** Demonstrated competency in writing and reading skills through appropriate assessment or successful completion of BSA program coursework.

Examines some major theories of ethics and their application to moral problems and issues.

### **PHL 101 Introduction to Philosophy**

3 Credits

**Prerequisite:** ENG 111 and demonstrated competency in reading and writing skills through appropriate assessment or successful completion of BSA program coursework.

Examines some of the fundamental questions of philosophy such as the foundations of morality, skepticism and knowledge, the nature of mind, free will and determinism, and the existence of God.

### **HUM 101 Survey of Humanities**

3 Credits

**Prerequisite:** Demonstrated competency in reading and writing skills through appropriate assessment or successful completion of BSA program coursework.

Familiarizes students with the interrelated disciplines within the humanities: literature, fine arts, history, music, architecture, and philosophy.

## **MATHEMATICS**

### **MAT 110 Contemporary Mathematics**

3 Credits

**Prerequisite:** BSA 050 or demonstrated competency.

Presents mathematical concepts of numeration, algebra, geometry, probability and statistics through a problem-solving and modeling approach. The student will recognize, validate and communicate these concepts.

### **MAT 111 Intermediate Algebra**

3 Credits

**Prerequisite:** BSA 050 or demonstrated competency.

Presents in-depth study of the fundamental concepts and operations of algebra including real numbers, roots, linear equations and inequalities, graphing, systems of equations, polynomials, factoring, scientific notation, introduction of logarithms, rational expressions, quadratic equations, graphing, and English and metric conversion.

### **MAT 115 Statistics**

3 Credits

**Prerequisite:** MAT 111

Provides study in interpretation and presentation of descriptive and inferential statistics. Includes measures of central tendency, probability, binomial and normal distributions, hypothesis testing of one and two sample populations, confidence intervals, chi-square testing, correlation, data description and graphical representation.

### **MAT 121 Geometry and Trigonometry**

3 Credits

**Prerequisite:** MAT 111

Provides study in geometry and trigonometry including polygons, similarity, solid geometry, properties of circles, constructions, right triangles, angle measurements in radians and degrees, trigonometric functions and their applications to right triangles, Pythagorean Theorem, laws of sine and cosine, graphing of trigonometric functions, trigonometric identities and coordinate conversions.

### **MAT 131 Algebra and Trigonometry I**

3 Credits

**Prerequisite:** MAT 111 or demonstrated competency.

Provides study in algebra including functions, exponential rules, linear equations, radicals, vectors, right triangle trigonometry, oblique triangles, graphs of sine and cosine functions and variation.

### **MAT 132 Algebra and Trigonometry II**

3 Credits

**Prerequisite:** MAT 131

Continues Algebra-Trigonometry I providing study of systems of equations, vectors, graphs of trigonometric functions, trigonometric equations, complex numbers, exponential and logarithmic functions, and conics.

### **MAT 135 Finite Math**

3 Credits

**Prerequisite:** MAT 111 or demonstrated competency.

Surveys solving and graphing linear equations and inequalities, elementary set theory, matrices and their applications, linear programming and elementary probability.

### **MAT 201 Brief Calculus**

3 Credits

**Prerequisite:** MAT 132

Provides an introductory study of the fundamental concepts and operations of calculus, including functions, limits, continuity, derivatives, point of inflection, first derivative test, concavity, second derivative test, optimization, antiderivatives, integration by substitution and parts and applications of a definite integral.

## **LIFE AND PHYSICAL SCIENCES**

### **ANP 101 Anatomy and Physiology I**

3 credits (2 lecture, 2 lab)

**Prerequisite:** Demonstrated competency through assessment or BSA coursework.

Develops a comprehensive understanding of the close interrelationship between anatomy and physiology as seen in the human organism. It begins by introducing the student to the cell which is the basic structural and functional unit of all organisms and covers tissues, integument, skeleton, muscular and nervous systems as an integrated unit.

**ANP 102 Anatomy and Physiology II**

3 credits (2 lecture, 2 lab)

**Prerequisite:** ANP 101

Continues the study of the interrelationships of the systems of the body, covering digestion, respiratory, blood, lymphatic articulation, excretion, hormone secretion, and reproduction. A brief overview of human growth and development as well as heredity is presented.

**ANP 201 Advanced Physiology**

4 credits (3 lecture, 2 lab)

**Prerequisite:** ANP 102, CHM 101

Studies of human physiology for students entering health oriented fields. Emphasis will be on the study of the function of the nervous, muscular, circulatory, respiratory, urinary, digestive and endocrine systems and their homeostatic mechanisms and system interaction. Laboratory exercises focus on clinically relevant measurement of human function.

**BIO 101 Introductory Biology**

3 credits (2 lecture, 2 lab)

**Prerequisite:** Demonstrated competency through assessment or BSA coursework.

Provides an introduction to the basic concepts of life. The course includes discussion of cellular and organismal biology, genetics, evolution, ecology and interaction among all living organisms. Applications of biology to society are addressed.

**BIO 111 Microbiology**

3 credits (2 lecture, 2 lab)

**Prerequisite:** Demonstrated competency through assessment or BSA coursework.

Presents an overview of microbiology which includes fundamentals, methods and materials, an introduction to industrial and clinical microbiology and special topics.

**BIO 112 Microbiology II**

2 credits (2 lecture, 1 lab)

**Prerequisite:** BIO 111

Presents a study of bacteria, viruses, yeasts and molds, rickettsia and parasites and their roles in diseases.

**CHM 101 Chemistry I**

3 credits (2 lecture, 2 lab)

**Prerequisite:** Demonstrated competency through assessment or BSA coursework.

Studies the science of chemistry and measurement, atomic theory and the periodic table, chemical bonding, stoichiometry and gases.

**CHM 102 Chemistry II**

3 credits (2 lecture, 2 lab)

**Prerequisite:** CHM 101

Includes liquids and solids, solutions and solution concentrations, acids and bases, equilibrium, nuclear chemistry, organic and biochemistry.

**PHY 101 Physics I**

4 credits (3 lecture, 2 lab)

**Prerequisite:** MAT 121 or 131

Studies the basic concepts of mechanics, including force and torque, linear and rotational motion, work, energy and power, simple machines and fluids.

**PHY 102 Physics II**

4 credits (3 lecture, 2 lab)

**Prerequisite:** PHY 101

Provides the study of physics of heat, light, periodic and wave motion, electricity and magnetism, and concepts of motion and current physics.

**PHY 110 Technical Physics**

4 credits (3 lecture, 2 lab)

**Prerequisite:** MAT 111

Introduces concepts and applications of physics. The organization of this course is nontraditional in that it leads the student to develop an integrated understanding of the theory and application of measuring (or unit) systems, scales, vectors, force, work, rates, energy, momentum, power, force transformers, simple machines, vibrations, waves, and time constants.

**SCI 111 Physical Science**

3 credits (2 lecture, 2 lab)

**Prerequisite:** Demonstrated competency through assessment or BSA coursework.

Studies physical concepts and theories pertaining to current applications and trends in physics, chemistry, earth science, and astronomy. Emphasis is on concept and factual knowledge.

## General Technical Studies Certificate (TC) — Business

SEMESTER 1 (15 CREDITS)				SEMESTER 2 (15 CREDITS)			
ENG	111	English Composition	3	MAT	110	Contemporary College Math	3
BUS	288	College Study Principles for Business students	3	MAT	111	Intermediate Algebra	3
POL	101	Introduction to American Government and Politics OR		ECN	101	Economic Fundamentals	3
SOC	101	Introduction to Sociology	3	** SELECT:		Elective	9
** SELECT:		Elective	6	TOTAL CREDITS			30

\*\* Selectives must be taken from your area of interest.

## General Technical Studies Certificate (TC) — Health and Human Services

SEMESTER 1 (15 CREDITS)				SEMESTER 2 (15 CREDITS)			
ENG	111	English Composition	3	COM	101	Fundamentals of Public Speaking OR	
MAT	110	Contemporary College Math OR		ENG	211	Technical Writing	3
*MAT	111	Intermediate Algebra	3	SOC	111	Intro to Sociology OR	
*MEA	101	Medical Terminology	3	PSY	101	Intro to Psychology	3
ANP	101	Anatomy and Physiology	3	ANP	102	Anatomy and Physiology OR	
HST	101	Intro to Human Services	3	HST	101	Helping Relationship Techniques	3
** SELECT:		Student Elective	3	** SELECT:		Student Elective	3
				** SELECT:		Student Elective	3
				TOTAL CREDITS			
				30			

\* Recommended that students take MEA 101 before ANP 101 and MAT 111 before CHM 101.

## General Technical Studies Certificate (TC) — Technology

SEMESTER 1 (15 CREDITS)				SEMESTER 2 (15 CREDITS)			
MAT	111	Intermediate Algebra	3	ENG	OR		
TEC	102	Technical Graphics	3	COM		General Education	3
TEC	104	Comp. Fundamentals for Technology	3	QSC	101	Quality Control Concepts and Techniques	3
** SELECT:		Technical Elective	3	*TEC	113	Basic Electricity	3
** SELECT:		Technical Elective	3	** SELECT:		Elective	3
				** SELECT:		Elective	3
				TOTAL CREDITS			
				30			

\* Students should demonstrate BSA050 math skills by test, prerequisite or co-requisite

\*\* Selectives must be taken from your area of interest.

# Course Descriptions

## **ABR 101 Body Repair Fundamentals**

3 Credits

Examines the characteristics of body metals and includes the installation of moldings, ornaments and fasteners with emphasis on sheet metal analysis and safety.

## **ABR 103 Auto Paint Fundamentals**

3 Credits

Introduces auto paint considerations with emphasis on the handling of materials and equipment in modern automotive technologies.

## **ABR 104 Collision Damage Analysis and Repair**

3 Credits

Provides instruction in analyzing extensive body damage and determining the tools and procedures needed to replace panels.

## **ABR 105 Conventional Frame Diagnosis and Correction**

3 Credits

Covers the use of tools, frame machines and equipment for frame and chassis repair. Includes study of terms pertaining to front suspension and rear axle. Describes uses of frame gauges, tram gauges and other measuring devices.

## **ABR 106 Body Repair Applications**

3 Credits

Introduces fundamentals of using hand and power tools in the repair of minor collision damage, with emphasis on safety.

## **ABR 107 Automotive Painting Technology**

3 Credits

Provides instruction in the total refinishing of an automobile with emphasis on advanced and specialty painting techniques.

## **ABR 108 Unibody Structural Analysis and Repair**

3 Credits

Covers unibody repair, identification and analysis of damage, measuring and fixturing systems, straightening systems and techniques, mechanical component service and knowledge of suspension and steering systems on front-wheel-drive unibody vehicles.

## **ABR 120 Fiberglass Plastic Repair**

3 Credits

Introduces types of fiberglass and plastic materials used in auto body repair. Covers both interior and exterior applications.

## **ACC 101 Accounting Principles I**

3 Credits

Introduces the fundamental principles, techniques and tools of accounting. Presents the mechanics of the accounting cycle including collecting, recording, summarizing, analyzing and reporting information pertaining to service and mercantile enterprises. Covers internal control, deferred charges, notes and interest, valuation of receivables, payrolls, inventories and plant assets.

## **ACC 102 Accounting Principles II**

3 Credits

Continues the study of accounting to include partnership and corporate accounting systems. Covers preparation and analysis of

financial statements including a statement of cash flow, and long-term liabilities and investments. Introduces cost, managerial, branch and departmental accounting techniques.

## **ACC 105 Income Tax I**

3 Credits

Offers an overview of federal and state income tax law for individuals including taxable income, capital gains and losses, adjustments, standard and itemized deductions, tax credits and appropriate tax forms. Introduces tax concepts needed by a sole proprietorship.

## **ACC 106 Payroll Accounting**

3 Credits

Covers payroll calculating and reporting including various federal and state withholding taxes, employer payroll taxes, typical insurance and other arrangements affecting the preparation of payroll registers and employees' earnings records.

## **ACC 107 Accounting for Recordkeeping**

3 Credits

Provides instruction for non-accounting majors, with special emphasis on the trade professions. Covers the cash basis of recordkeeping for materials, payroll, depreciation and financial statements. Introduces the operation of petty cash funds, basic cash budgeting and controlling cash through the use of a checkbook. Covers financial ratios, construction accounting methods and computing customer estimates.

## **ACC 108 Career Essentials of Accounting**

3 Credits

Introduces the basic principles of accounting as utilized in a variety of office settings. Includes the principles of debit and credit, double-entry bookkeeping, use of journals and transaction analysis. Covers uses of ledgers, posting procedures, petty cash, banking procedures, payroll, depreciation, work sheets, balance sheets and income statements.

## **ACC 109 Personal Finance**

3 Credits

Examines the process of setting and achieving financial goals. Emphasizes managing financial resources, budgeting for current expenses, projecting cash flow and managing short- and long-term credit. Includes use of insurance to reduce risks and vehicles for saving and investing.

## **ACC 111 Accounting Principles Lab I**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in an Accounting Principles I course. Introduces the touch-method of numeric input on a calculator and includes computerized problems.

## **ACC 112 Accounting Principles Lab II**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in the Accounting Principles 2 course. Uses computerized problems.

**ACC 113 Income Tax Lab****1 Credit**

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in the Income Tax 1 course. Uses computerized problems.

**ACC 114 Payroll Accounting Lab****1 Credit**

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in the Payroll Accounting course. Uses computerized problems.

**ACC 118 Financial Concepts for Accounting****3 Credits**

Develops math skills needed in the business field and serves as a basis for course work in business. Includes the study of business applications using rational numbers, algebraic equations, time value of money concepts and basic statistics.

**ACC 201 Intermediate Accounting I****3 Credits**

Studies accounting principles and applications at an intermediate level pertaining to the income statement and balance sheet, cash and short-term investments, receivables, inventories, plant assets and intangible assets. Includes analysis of bad debts, inventory valuation, repairs and maintenance, depreciation of plant assets and present value applications.

**ACC 202 Intermediate Accounting II****3 Credits**

Continues studies of Intermediate Accounting I and includes long-term investments, current and contingent liabilities, long-term debt, stockholders' equity, special accounting problems and analysis, statement of cash flows and financial statement analysis. Includes capital and treasury stock transactions, dividends, earnings per share, accounting for income taxes, correction of errors and creation of financial statements from incomplete records.

**ACC 203 Cost Accounting I****3 Credits**

Examines the manufacturing process in relation to the accumulation of specific costs of manufactured products. Studies various cost accounting report forms, material, labor control and allocation of manufacturing costs to jobs and departments.

**ACC 204 Cost Accounting II****3 Credits**

Continues Cost Accounting I. Studies the master or comprehensive budget, flexible budgeting and capital budgeting. Emphasizes tools for decision making and analysis. Introduces human resource accounting.

**ACC 205 Seminar in Accounting****1 Credit**

Allows accounting students an opportunity to pursue specific areas of interest at a more advanced level in accounting.

**ACC 206 Managerial Accounting****3 Credits**

Provides an understanding of accounting records and management decision making, with topics including internal accounting records and quantitative business analysis.

**ACC 207 Accounting for Government and Nonprofit****3 Credits**

Emphasizes the similarities and differences between government, nonprofit and commercial accounting methods and procedures. Exposes students to the basic fund accounting cycle for the general fund and other special funds.

**ACC 208 Income Tax II****3 Credits**

Continues Income Tax 1. Studies procedures and problems pertaining to federal and state income tax laws for partnerships and corporations. Includes a review and in-depth study of concepts related to proprietorships covered in Income Tax 1.

**ACC 209 Auditing****3 Credits**

Covers public accounting organization and operation including internal control, internal and external auditing, verification and testing of the balance sheet and operating accounts, and the auditor's report of opinion of the financial statements.

**ACC 212 Business Finance****3 Credits**

Introduces basic tools and techniques of financial analysis and management and sources of financial and economic theory as applied to business finance. Includes conceptual materials related to valuation, capital structure formulation and risk-return consideration.

**ACC 213 Electronic Spreadsheets in Business****3 Credits**

Provides instruction in the use of all modules of a spreadsheet software package including spreadsheet, graphics and database operations and applying these modules to business problems.

**ACC 214 Consumer and Commercial Credit****3 Credits**

Provides instruction for retail, service, wholesale, and manufacturing firms extending credit to clients. Explores theory, principles and practice of consumer and commercial credit related to business activity and economic impact. Examines managerial functions of collecting and controlling credit to consumers and businesses. Emphasizes credit plans, credit and sales, short-term and intermediate credit and legal aspects of credit.

**ACC 215 Credit Procedures and Collections****3 Credits**

Examines credit as a means of extending purchasing power, i.e., increased buying power, immediate use of money, merchandise or services and delayed payment. Covers concepts of credit and principles and methods of credit administration involving individuals and businesses. Includes information on credit policy, credit control, credit decision making and legal remedies.

**ACC 216 Credit Management****3 Credits**

Explores functions of acquiring cycle of credit and management function of control cycle. Combines lectures, discussions, individual research and projects with written and oral presentations of findings and results.

**ACC 217 Intermediate Accounting Lab I**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in Intermediate Accounting 1. Uses computerized problems.

**ACC 218 Intermediate Accounting Lab II**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in Intermediate Accounting 2. Uses computerized problems.

**ACC 219 Cost Accounting Lab**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in Cost Accounting 1. Uses computerized problems.

**ACC 220 Special Applications Lab I**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in an accounting course. Uses computerized problems.

**ACC 221 Special Applications Lab II**

1 Credit

Presents a series of planned accounting learning problems and activities designed to accompany concepts and theories included in an accounting course. Uses computerized problems.

**ACC 222 Accounting Software Applications**

3 Credits

Solves accounting problems using software similar to what is currently used in business. Includes installation, operation and analysis of an accounting software package.

**ACC 223 Advanced Topics in Accounting**

2 Credits

Discusses topics of current interest in accounting. Focuses on special interest projects for students in accounting. Includes trips, guest speakers, audio-visual activities and seminars.

**ACC 224 Construction Bidding**

3 Credits

Examines bidding procedures, contract documents, contracts, bonds and insurance. Describes materials and installation procedures and how they may affect the bid. Covers the unit of measure of the work, estimating the quantity of materials and the relationship of the specifications.

**ACC 225 Integrated Accounting Software**

3 Credits

Integrated accounting software package(s) will be used to illustrate computerized accounting practices. The general ledger will be integrated with accounts receivable, accounts payable and other accounting.

**ACC 281-293 Special Topics in Accounting Technology**

1-5 Credits

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact Accounting Program Chairperson for information.

**ADP 809 Real Estate Sales**

3 Credits

Provides instruction in accordance with the guidelines established by the Indiana Real Estate Commission. Includes property descriptions, marketing real estate, licensing, financing, contract, zoning, closing procedures and property management.

**ADP 810 Real Estate Broker**

3 Credits

Provides instruction in accordance with the guidelines established by the Indiana Real Estate Commission. Includes property management, appraisal, investment, closing the real estate transaction and other topics.

**AFS 101 Fire Technology**

3 Credits

Examines the history of firefighting, identifies the types of apparatus and fire protection systems and analyzes the fire problem in general. Provides a basis for the chemical and hazardous properties of combustion and the related by-products.

**AFS 102 Fire Apparatus and Equipment**

3 Credits

Examines in detail the types of apparatus in use today. Studies pumps, aerials, elevating platforms and special apparatus. Utilizes National Fire Protection Association standards in identifying the proper responses for a given situation. Includes study of apparatus placement on an emergency incident, types of pumps, tests, equipment, drafting, relay, nozzles, fittings and hose lays and maintenance on various types of apparatus.

**AFS 103 Firefighting Strategy and Tactics**

3 Credits

Prepares the student to make responsible decisions concerning fireground strategies and tactics at the company level. Uses various priority scenarios, including preparing for incident command and commanding the initial response. Emphasizes company operations with basic command decisions.

**AFS 104 Building Construction Fire Service**

3 Credits

Examines the design principles involved in the protection of a structure from fire involvement. Studies the signs, symptoms and indicators of partial or total building collapse during firefighting operations. Includes the study of legislative codes and laws concerning building design, building fire safety, classification of building construction and blueprint reading.

**AFS 105 Fire/Arson Investigation**

3 Credits

Focuses on the responsibilities of the firefighter, the investigator and the department in fire scene investigations, fire cause and loss, collection and preservation of evidence, and determination of fire origin. Emphasizes the application and assistance of various scientific aids that assist in the investigation.

**AFS 108 Fire Prevention/Inspection**

3 Credits

Examines the function of the fire inspector and the organization of the fire prevention unit. Emphasizes identifying codes and regulations utilized by the inspector, with particular use of the Indiana Fire Code. Includes the legal authority of fire prevention principles, application of the fire code and sound management principles as applied to a bureau.

**AFS 109 Fire Department Specifications****3 Credits**

Surveys specifications of firefighting apparatus, equipment, protective clothing, facilities, and all other sources of materials necessary to a fire department. Study includes the writing of Standard Operating Guides (SOGs) and blueprint readings.

**AFS 201 Fire Protection Systems****3 Credits**

Provides a general introduction to fire alarm monitoring devices and extinguishing systems. Develops a strong base for fire protection or commercial applications. Covers fire extinguishing agents, portable fire extinguishers, carbon dioxide systems, dry chemical systems, halogenated systems/foam systems, explosive suppression systems, thermal/smoke/flame detection systems and building monitoring systems. Covers standpipe and sprinkler systems.

**AFS 202 Fire Service Management****3 Credits**

Studies the principles and functions of administrative and management personnel in the fire service. Topics discussed include departmental organizations, administrative and management procedures, personnel selection, line and staff functions, communications, the fire company unit, public relations and current problems in administration.

**AFS 204 Fire Service Hydraulics****3 Credits**

Studies compressible fluids including fluid properties, principles of fluid statics, flow system principles, pipe friction and head loss, flow measurements, pumps and other appliances and hydraulic devices. Relates applications to fire protection, water supply and foam systems.

**AFS 205 Aircraft Firefighting****3 Credits**

Examines the hazards associated with aircraft firefighting. Includes lecture and practical use of airport firefighting equipment, extinguishing agents, strategy and tactics, rescue methods and aircraft design and construction.

**AFS 206 Shipboard Firefighting****3 Credits**

Focuses on firefighting strategy and tactics for land-based fire department personnel and equipment. Includes a survey of equipment, hook-ups, procedures, incident command, use of foam and support systems on ships.

**AFS 262 Firefighter 2nd Class****3 Credits**

Certifies firefighters for state certification as a second class firefighter.

**AFS 263 Firefighter 1st/2nd Class****3 Credits**

Completes certification at the second class level and begins first class instruction.

**AMT 102 Introduction to Robotics****3 Credits**

Introduces students to robotics and automated systems and their operating characteristics. Covers robotics principles of operation and work envelopes. Teaches coordinate systems and how hydraulic, pneumatic and electromechanical systems function

together as a system. Covers servo and non-servo controls, system capabilities and limitations and safety. Investigates robot tooling, including welders, grippers, magnetic pickups, vacuum pickups, compliance devices, adhesive applicators and paint sprayers.

**AMT 201 Manufacturing Systems Control****3 Credits**

Introduces the field of industrial controls. Teaches principles of control systems and how they are applied to a production system to achieve automation. Systems included in the course are stepper motors, programmable logic controllers, microprocessors, computers and feedback systems. Emphasizes programmable logic controllers and the local area network.

**AMT 202 Work Cell Design and Integration****3 Credits**

Studies principles pertaining to design and implementation of robots in industrial work cells. Emphasizes selection of the best work site and robot system, application of cell sensor, development of cycle times, economic analysis, safety considerations, proposal preparation and human resources development.

**AMT 203 Automation Electronics****3 Credits**

Demonstrates the operation and application of electronic devices in the automation field. Includes linear integrated circuits, sensors and interfacing systems, actuators and drive controls and process control techniques.

**AMT 205 Automated Manufacturing Systems****3 Credits**

Provides instruction in selecting equipment, writing specifications, designing fixtures and interconnects, integrating systems, providing interfaces and making the assigned systems operational to produce -marketable+ products.

**AMT 240 Introduction to Computer Integrated Manufacturing****3 Credits**

Includes the study of all major components of computer-integrated manufacturing (business, engineering and shop floor) as an integrated whole. Includes project planning which will be formally documented and presented by students.

**AMT 241 Computer-Integrated Manufacturing Project****3 Credits**

Continues the study of the major components of computer-integrated manufacturing (business, engineering and shop floor) as an integrated whole. Covers advanced CIM applications and includes the implementation of the project planned in AMT 240 in a realistic CIM environment.

**AMV 100 Introduction to Transportation****3 Credits**

Introduces students to the work environment of a transportation repair facility. Presents historical and future trends with emphasis in career/placement requirements. Safety, OSHA, EPA, and environmental standards are presented. Introduction to the eight areas of ASE technician certification and related tools are presented.

**AMV 100 Ford Introduction to Transportation****3 Credits**

Introduces students to the work environment of a transportation repair facility. Presents historical and future trends with emphasis in career/placement requirements. Safety, OSHA, EPA, and environmental standards are presented.

Introduction to the eight areas of ASE technician certification and related tools are presented.

**AMV 100 GM Introduction to Transportation****3 Credits**

Introduces students to the work environment of a transportation repair facility. Presents historical and future trends with emphasis in career/placement requirements. Safety, OSHA, EPA, and environmental standards are presented. Introduction to the eight areas of ASE technician certification and related tools are presented.

**AMV 101 T-Ten Chassis and Suspension****3 Credits**

This course is a study of various frame designs and suspension systems used in modern Toyota vehicles. Repair and replacement of steering linkages and chassis components, both front and rear systems are included.

**AMV 101 Ford STST Suspension and Steering****3 Credits**

This course is a study of various frame designs and suspension systems used in Ford vehicles. Repair and replacement of steering linkages and chassis components, both front and rear are included. Course also includes study of Air Suspension, Active Suspension, Level Ride, Electronic Variable power steering systems and related computers.

**AMV 101 GM STG Suspension and Steering****3 Credits**

This course is a study of various frame designs and suspension systems used in GM vehicles. Repair and replacement of steering linkages and chassis components, both front and rear are included. Course also includes study of Level Ride, Electronic Variable power steering systems and related computers.

**AMV 107 Ford Engine Principles and Design****3 Credits**

Examines engine dynamics, theory of engine operation and design characteristics of all engine assemblies and subassemblies. Emphasizes removal, tear down, visual inspection, precision measuring inspection, clean up of components and parts and rebuilding engines according to industry standards.

**AMV 107 GM Engine Principles and Design****3 Credits**

Examines engine dynamics, theory of engine operation and design characteristics of all engine assemblies and subassemblies. Emphasizes removal, tear down, visual inspection, precision measuring inspection, clean up of components and parts and rebuilding engines according to industry standards.

**AMV 113 Basic Electricity STST Certification****3 Credits**

Introduction to electrical theory and Ford automotive circuits and components. Electron theory, electrical circuits, electronic circuits, terms and wiring diagrams are emphasized. Students also will be introduced to electrical and electronic circuits and components testing.

**AMV 113 GM STG Specialized Electronics Training****3 Credits**

The course is an introduction to electrical theory and General Motors automotive circuits and components. Electron theory, electrical circuits, electronic circuits, terms and wiring diagrams are emphasized. Students also will be introduced to electrical and electronic circuits and components testing.

**AMV 113 Toyota Electrical Circuits****3 Credits**

Introduces fundamentals of electricity and electrical behavior as applied to modern transportation. Includes extensive use of digital multimeters and circuit troubleshooting. Presents an intensive study of the construction, function and principles of operation of starting motors, charging systems and their control systems with emphasis on diagnosis and bench repair.

**AMV 202 Computer Engine Controls****3 Credits**

Examines computerized ignition, carburetor, fuel injection and sensors for engine controls on late model passenger cars. Covers theory, diagnostic procedure and repair procedure of the CCC, MCU, EEC-IV, lean burn and other spark control systems.

**AMV 202 Ford SST Electronic Engine Controls****3 Credits**

This course examines computerized ignition, carburetor, fuel injection and sensors for engine controls on late model passenger cars. Covers theory, diagnostic procedure and repair procedure of the EEC-IV systems.

**AMV 202 GM Computer Engine Controls****3 Credits**

This course examines computerized ignition, carburetor, fuel injection and sensors for engine controls on late model passenger cars. Covers theory, diagnostic procedure and repair procedure of the General Motors HEI and DIS systems.

**AMV 202 Toyota Computer Control System****3 Credits**

This course examines computerized ignition, fuel injection, and sensors for engine controls on late model Toyota passenger cars. Content includes theory, diagnostic procedures, and repair of EFI and TCCS.

**AOT 103 Information/Word Processing Concepts****3 Credits**

Introduces the concept of information/word processing systems. Offers hands-on experience in the operation of word processing systems.

**AOT 105 General Office Procedures****3 Credits**

Emphasizes procedures and the changing responsibilities for the entry-level secretary/receptionist in today's offices. Identifies the skills and attitudes needed to succeed in the business environment.

**AOT 106 Refresher Shorthand****1 Credit**

Provides instruction in a lab setting to bring shorthand skills to an employable level.

**AOT 107 Refresher Typewriting****1 Credit**

Provides instruction in a lab setting to bring typing skills to an employable level. Concentrates on four areas of skill development: speed and accuracy, business letters, tables and tabulations, and reports.

**AOT 108 Shorthand/Notetaking I****3 Credits**

Emphasizes basic theory, brief forms and speed in reading from notes and the textbook. Focuses on the correct way to write shorthand. Uses dictation with emphasis placed on writing and transcription techniques.

**AOT 109 Professional Development****2 Credits**

Enables students to analyze and improve themselves in terms of posture, weight control, personal hygiene, grooming, wardrobe, personality, communication and job application skills for success in employment. Includes resume preparation and interviewing skills.

**AOT 110 Keyboarding Skill Development****1 Credit**

Designed to help experienced typists gain greater speed and accuracy.

**AOT 111 Shorthand/Notetaking II****3 Credits**

Develops dictation, notereading and transcription skills through drills and tests. Emphasizes speed, accuracy and use of correct English. Reinforces and builds on principles and skills learned in Shorthand/Notetaking I.

**AOT 112 Data Entry****3 Credits**

Emphasis placed on accuracy and speed.

**AOT 113 Office Calculating Machines****1 Credit**

Teaches students to use the 10-key electronic printing/display calculator. Develops competence with the desk calculator and familiarity with the types of business problems they commonly solve.

**AOT 116 Business Communications****3 Credits**

Develops communications skills for use in business and industry. Focuses on writing effective business letters, memos, reports, and reviewing grammar and punctuation rules.

**AOT 119 Document Production****3 Credits**

Emphasizes increasing speed, improving accuracy, developing and applying formatting skills, applying communication and language arts skills, and learning document production techniques.

**AOT 202 Information/Word Processing Applications****3 Credits**

Knowledge acquired from Information/Word Processing Concepts will be further enhanced as more sophisticated features of a word processing package are learned and applied.

**AOT 206 Shorthand/Notetaking 3****3 Credits**

Reviews fundamentals learned in Shorthand/Notetaking I and 2.

Emphasizes skill in taking new matter dictation with more emphasis on transcribing mailable letters. Stresses essentials of good English principles.

**AOT 207 Office Automation Applications****3 Credits**

Provides instruction in the use of computers and computer software. Covers mastery of spreadsheet and database software programs. Explores the integration of these packages with a word processing package. Assists students in applying their knowledge of office automation systems to make decisions, solve problems, and facilitate information in an office support setting.

**AOT 212 Micro Word Processing****3 Credits**

Deals with business applications of word processing software on microcomputer work stations. Includes practical applications in the use of a microcomputer word processing software.

**AOT 214 Desktop Publishing****3 Credits**

Provides computer skills in the production of camera-ready materials through electronic publishing.

**AOT 215 Legal Term/Practice****3 Credits**

Provides basic understanding of the secretarial duties and responsibilities pertinent to the legal profession. Presents ethics of law and professional conduct. Includes laboratory experience.

**AOT 216 Practicum/Internship****3 Credits**

This "hands on" field experience allows the student to put into practice skills and knowledge obtained in class.

**AOT 219 Specialized Formatting/Transcription****3 Credits**

Emphasizes production techniques, which include correspondence, business forms, manuscripts, tabulations and secretarial projects. Emphasizes composition skills and the application of communications skills. Includes transcription from machine dictation and an introduction to products, services and terminology encountered in business organizations.

**AOT 220 Document Management****3 Credits**

Focuses on management and control of documents from creation to disposition, using manual, automated and electronic media. Discusses records management personnel, equipment, and procedures.

**AOT 221 Office Management and Procedures****3 Credits**

Provides a culminating study of the management of business office systems and procedures. Covers problem-solving techniques, selection of office structures, personal and organizational dynamics, cooperative and teamwork activities, communication abilities and job search skills.

**AOT 224 Advanced Desktop Publishing****3 Credits**

Provides hands-on experience and familiarizes students with specific advanced design and layout techniques and practical applications of desktop publishing.

**AOT 281-293 Special Topics in Administrative Office**  
1-5 Credits

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**ART 111 Drawing for Visualization**

3 Credits

Introduces students to the tools and methods of drawing. Presents drawing as a catalyst to seeing a way of recording ideas. Gives students the necessary drawing preparation for the study of graphic design.

**ART 114 Graphic Design**

3 Credits

Analyzes and reviews basic theories of graphic layout and design and their underlying principles and processes. Includes alphabet design and design language, imposition, design steps, rough, thumbnail, comprehensive and final layout and preparation of dummy.

**ART 217 Advanced Graphic Design**

3 Credits

Provides experience with advanced design projects which communicate a common theme through several different media. Provides opportunity for students to work in a team environment

**ART 218 Digital Productions**

3 Credits

This course addresses the issues of preparing camera-ready art electronically. Topics covered are preparing computer files for service bureau output, scanning and printing resolution, color matching and color models, trapping and computer system operations and troubleshooting.

**AST 102 Two/Four-Wheel Alignment**

3 Credits

Covers the principles of two- and four-wheel alignment and wheel balance. Emphasizes practical work experience in the lab covering all the alignment angles.

**AST 102 Ford STST Steering**

3 Credits

Covers the principles of two- and four-wheel alignment and wheel balance. Emphasizes practical work experience in the lab covering all the alignment angles.

**AST 102 GM STG Steering and Alignment**

3 Credits

Covers the principles of two- and four-wheel alignment and wheel balance. Emphasizes practical work experience in the lab covering all the alignment angles.

**AST 102 T-Ten Alignment**

3 Credits

Covers the principles of two- and four-wheel alignment and wheel balance. Emphasized practical work experience in the lab covering all the alignment angles.

**AST 104 Start and Charge Systems**

3 Credits

Studies construction, function and principles of operation of

starting motors, charging systems and their control systems with emphasis on diagnosis and bench repair.

**AST 104 Ford Start and Charge Systems**

3 Credits

Studies construction, function and principles of operation of starting motors, charging systems and their control systems with emphasis on diagnosis and bench repair.

**AST 104 GM Start and Charge Systems**

3 Credits

Studies construction, function and principles of operation of starting motors, charging systems and their control systems with emphasis on diagnosis and bench repair.

**AST 104 T-Ten Start and Charge Systems**

3 Credits

An intensive study of the Toyota construction, function, and principle of operation of starting motors, charging systems and their control systems, with emphasis on diagnosis and repair. The study will include basic principles and rules that govern the operation of electrical circuits, systems, components and equipment that relate to the subject.

**AST 105 Ford Fuel Systems**

3 Credits

Studies automotive fuel systems: single, double, and four barrel carburetors, fuel injection systems, and emission controls as they apply to the fuel system. Focuses on shop procedures for troubleshooting, servicing, replacing or overhauling fuel system and emission control components.

**AST 105 GM Fuel Systems**

3 Credits

Studies automotive fuel systems: single, double, and four barrel carburetors, fuel injection systems and emission controls as they apply to the fuel system. Focuses on shop procedures for troubleshooting, servicing, replacing or overhauling fuel system and emission control components.

**AST 105 Toyota Fuel Systems**

3 Credits

Studies automotive fuel systems: single, double, and four barrel carburetors, fuel injection systems and emission controls as they apply to the fuel system. Focuses on shop procedures for troubleshooting, servicing, replacing or overhauling fuel system and emission control components.

**AST 105 Fuel Systems**

3 Credits

Studies automotive fuel systems: single, double and four barrel carburetors, fuel injection systems and emission controls as they apply to the fuel system. Focuses on shop procedures for troubleshooting, servicing, replacing or overhauling fuel system and emission control components.

**AST 201 Ford STST Climate Control**

3 Credits

Provides an in-depth study of automotive air conditioning and heating. Emphasizes the operation and theory of air conditioning and its components. Includes Electronic temperature control systems, related computers as well as operation of R-134a systems and reclaim/recovery equipment.

**AST 201 GM STG Climate Control****3 Credits**

Provides in in-depth study of automotive air conditioning and heating. Emphasizes the operation and theory of air conditioning and its components. Includes Electronic temperature control systems, related computers as well as operation of R-134a systems and reclaim/recovery equipment.

**AST 201 Toyota Climate Control****3 Credits**

Provides an in-depth study of automotive air conditioning and heating. Emphasizes the operation and theory of air conditioning and its components. Includes a study of vacuum and electrical control circuits.

**AST 203 Ford STST Engine Repair****3 Credits**

Covers precision machines, tools and equipment needed for rebuilding today+s modern engine. Includes repair, proper assembly and installation techniques applicable to the modern engine.

**AST 203 GM Engine Rebuild****3 Credits**

Covers precision machines, tools and equipment needed for rebuilding today+s modern engine. Includes repair, proper assembly and installation techniques applicable to the modern engine.

**AST 204 Ford Automatic Transmission/Transaxle****3 Credits**

Deals with construction, and functions and principles of operation. Emphasizes practical work experience in the lab where students will overhaul automatic transmissions and transaxle assemblies.

**AST 204 GM Automatic Transmission/Transaxle****3 Credits**

Deals with construction, and functions and principles of operation. Emphasizes practical work experience in the lab where students will overhaul automatic transmissions and transaxle assemblies.

**AST 205 Ford Manual Transmission/Transaxle****3 Credits**

Presents theory and overhaul procedures related to the manual transmission/transaxle, including clutches and transfer cases and diagnosis and overhaul of the manual power train.

**AST 205 Toyota Manual Transmission/Transaxle****3 Credits**

Presents theory and overhaul procedures related to the manual Transmission/ transaxle, including clutches and transfer cases and diagnosis and overhaul of the manual power train.

**AST 205 GM Manual Transmission/Transaxle****3 Credits**

Presents theory and overhaul procedures related to the manual transmission/transport, including clutches and transfer cases and diagnosis and overhaul of the manual power train.

**AST 206 Heating and Air Conditioning Service and Repair****3 Credits**

Covers diagnosis, service and repair procedures of the heating/air conditioning system. Includes replacement and overhaul

procedures for components related to heating/air conditioning systems.

**AST 207 Ford STST Advanced Engine Performance****3 Credits**

An advanced course in the theory, diagnosis, and repair of Ford computer controlled ignitions and fuel systems, and emission controls on late model vehicles, using state-of-the-art diagnostic equipment. Emphasis is on recommended manufacturer methods for servicing the computer controlled ignition, fuel, and emission controls.

**AST 207 GM STG Drivability****3 Credits**

An advanced course in the theory, diagnosis, and repair of GM computer controlled ignitions and fuel systems, and emission controls on late model vehicles, using state-of-the-art diagnostic equipment. Emphasis is on recommended manufacturer methods for servicing the computer controlled ignition, fuel, and emission controls.

**AST 207 Toyota Engine Performance****3 Credits**

An advanced course in the theory, diagnosis, and repair of Toyota computer controlled ignitions and fuel systems, and emission controls on late model vehicles, using state-of-the-art diagnostic equipment. Emphasis is on recommended manufacturer methods for servicing the computer controlled ignition, fuel, and emission controls.

**AST 209 T-Ten Braking Systems****3 Credits**

Covers theory, service and repair of automotive braking systems and their components. Emphasizes hydraulic theory and the repair and service of booster units, master cylinder, wheel cylinder, caliper rebuilds and drum and rotor service.

**AST 209 Ford Automotive Braking Systems****3 Credits**

Covers theory, service and repair of automotive braking systems and their components. Emphasizes hydraulic theory and the repair and service of booster units, master cylinder, wheel cylinder, caliper rebuilds and drum and rotor service.

Course includes theory, operation and diagnosis of TEVES and MARK IV Anti-Lock brake systems including operation and use of diagnostic tools and related computer systems.

**AST 209 GM STG Braking Systems****3 Credits**

Covers theory, service and repair of automotive braking systems and their components. Emphasizes hydraulic theory and the repair and service of booster units, master cylinder, wheel cylinder, caliper rebuilds and drum and rotor service. Course includes theory, operation and diagnosis of RWAL and 4WAL Anti-Lock brake systems including operation and use of diagnostic tools and related computer systems.

**AST 220 Ford Transaxle and Driveline Service****3 Credits**

This course is a study of differential and driveline theory and overhaul. The study includes overhaul and service procedures applicable to gear sets, bearings and seals. Theory and overhaul. procedures related to the driveshaft and ale assemblies for front and rear wheel drive vehicles are also included.

**AST 220 GM STG Transaxle and Driveline Service****3 Credits**

A study of differential and driveline theory and overhaul. Includes overhaul and service procedures applicable to gear sets, bearings and seals. Theory and overhaul procedures related to the driveshaft and axle assemblies for front and rear wheel drive vehicles is included.

**AST 220 Toyota Transmission/Transaxle Service****3 Credits**

A study of theory and overhaul procedures of Toyota manual and electronic controlled transfer case assemblies, differential and driveline. Includes overhaul and service procedures to gear sets, bearings, seal and electrical related components. Theory and overhaul procedures related to the driveshaft and axle assemblies for front and rear wheel drive vehicles is included.

**AST 220 Transaxle and Driveline Service****3 Credits**

A study of differential and driveline theory and overhaul. Includes overhaul and service procedures applicable to gear sets, bearings, and seals. Theory and overhaul procedures related to the driveshaft and axle assemblies for front and rear wheel drive vehicles is included.

**AST 288.02 FORD STST Electronic and Accessory Systems****3 Credits**

This course is an advanced study of on-board vehicle electronic systems, computers and diagnostic equipment. Serial communications, scanners and oscilloscopes are integrated with concentration on schematic reading and problem solving. Course includes operation and diagnosis of various vehicle accessory systems.

**AST 288.01 GM STG Electronic and Accessory Systems****3 Credits**

This course is an advanced study of on-board vehicle electronic systems, computers and diagnostic equipment. Serial communications, scanners and oscilloscopes are integrated with concentration on schematic reading problem solving. Course includes operation and diagnosis of various vehicle accessory systems.

**AST 288.03 Toyota Electronic and Accessory Systems****3 Credits**

This course is an advanced study of on-board vehicle electronic systems, computers and diagnostic equipment. Serial communications, scanners and oscilloscopes are integrated with concentration on schematic reading and problem solving. Course includes operation and diagnosis of various vehicle accessory systems.

**AST 288.04 Electronic and Accessory Systems****3 Credits**

This course is an advanced study of on-board vehicle electronic systems, computers and diagnostic equipment. Serial communications, scanners and oscilloscopes are integrated with concentration on schematic reading and problem solving. Course includes operation and diagnosis of various vehicle accessory systems.

**BKR 101 Yeast- Raised Breads and Tools****3 Credits**

Prepares students to produce a variety of yeast-raised breads and rolls using both straight dough and sponge dough methods. Emphasizes proper mixing, fermentation, make-up proofing and baking.

**BKR 102 Plasticized and Sweet Doughs****3 Credits**

Prepares students to produce a variety of pastries. Emphasizes proper proofing, baking and finishing. Focuses on sanitation, hygienic work habits and their conformance with health regulations.

**BKR 103 Internship****3 Credits**

Requires students to produce yeast raised and plasticized/sweet dough products for limited retail sale for a 12-week period. Studies merchandising and marketing, planning, production, controlling scrap, cash recaps and all pertinent phases of retail bake shop operation.

**BKR 201 Cakes, Icings, and Fillings****3 Credits**

Requires students to produce and finish a variety of cakes. Emphasizes application techniques, color coordination and the flavor and texture of fillings. Practices the techniques of basic cake decorating. Emphasizes sanitation, hygienic work habits and their conformance with health regulations.

**BKR 202 Classical Cake Decorating****3 Credits**

Presents the six different classical styles of cake decorating, the production of gum paste objects which accompany the styles, the use of royal icings and investigates the similarities and differences between the six styles. Students will be required to produce examples of each style and technique, to include two practical examinations.

**BKR 204 Externship****3 Credits**

Requires practical work experience in chosen area of specialization. Students work in an approved site for a minimum of 144 hours, complete and submit a detailed log book, and have at least two site evaluations by immediate supervisor, one evaluation by faculty facilitator and a final group conference.

**BUS 101 Introduction to Business****3 Credits**

Examines the U.S. business system in relation to the nation's economy. Studies business ownership, organization principles and problems, management, control facilities, administration and development practices of American business enterprises.

**BUS 102 Business Law****3 Credits**

Describes the judicial system and the nature and sources of law affecting business. Studies contracts, sales and negotiable instruments with emphasis on Uniform Commercial Code applications. Includes appropriate remedies for breach of contract and tort liabilities. Examines business structures and agency.

**BUS 103 Office Administration****3 Credits**

Covers broad areas of administrative office services and management, including office organization, site location, layout and environment, records management, systems controls, office communication services and devices.

**BUS 105 Principles of Management****3 Credits**

Describes the functions of managers, including the management of activities and personnel. Focuses on application of guidance principles in management.

**BUS 202 Human Resource Management**  
3 Credits

Focuses on the activities of human resource management, with emphasis on employer-employee relations, job analysis and evaluation, salary administration, work measurement and standards, performance appraisal and legal compliance.

**BUS 203 Entrepreneurship**  
3 Credits

Explores business operations for the self-employed or managers employed in a small business enterprise.

**BUS 204 Case Problems in Management**  
3 Credits

Applies business concepts and principles to specific case studies or problems.

**BUS 208 Organizational Behavior**  
3 Credits

Studies human behavior in organizations at the individual and group level, including the effect of organizational structure on behavior. Focuses on using organizational behavior concepts for developing and improving interpersonal skills.

**BUS 210 Managerial Finance**  
3 Credits

Improves decision making skills related to the financial resources of a firm. Includes techniques of financial analysis, time value of money, capital budgeting and risk.

**BUS 280 Co-op/Internship**  
1-6 Credits

Gives students the opportunity to work at a job site that is specifically related to their career objectives. Provides on-the-job experience while earning credit toward an associate degree.

**CHD 121 Introduction to Early Childhood Profession**  
3 Credits

Introduces the philosophy of early childhood education. Includes theories of discipline, parent involvement, self-concept and an overview of various early childhood settings. Includes lectures, field trips and observations.

**CHD 122 Child Growth and Development**  
3 Credits

Studies the physical, social, emotional and cognitive development of children from conception to age eight, as well as their quality care and education. Includes lectures and observations.

**CHD 123 Health, Safety, and Nutrition**  
3 Credits

Analyzes basic safety, health, and nutrition needs. Emphasizes applications related to early childhood programs.

**CHD 124 Developmental and Cultural Awareness**  
3 Credits

Provides a basic understanding of the anti-bias/multi-cultural emphasis in the field of early childhood. Analyzes developmentally appropriate practices, theory and implementation for various early childhood settings. Includes lectures, field trips, review of current literature and observations.

**CHD 125 Curriculum in the Creative Arts**  
3 Credits

Examines materials, methods and teaching of creative arts to young children. Offers appropriate music, movement, art and

drama experiences for use in early childhood settings. Reviews theories of development of the young child.

**CHD 128 Practicum I**  
2 Credits

Focuses on observation skills and an introduction to site practices.

**CHD 129 Practicum II**  
2 Credits

Provides opportunity for practical experience through observation and supervised participation in child care settings. Requires successful completion of the practicum to advance to Practicum III.

**CHD 131 Seminar in Guidance Techniques**  
2 Credits

Surveys positive guidance techniques and skills that are effective with young children. Provides student with the opportunity to observe children and attempt to understand their needs.

**CHD 206 Early Child Administration**  
3 Credits

Introduces principles of managing a child care program. Emphasizes the manager's role including personnel and program administration and fiscal management. Explores client-community relations.

**CHD 209 Families in Transition**  
3 Credits

Examines the stages of the family life cycle and interpersonal relationships among family members.

**CHD 211 School- Age Programming**  
3 Credits

Examines materials, methods and teaching styles for creative experiences for school age children. Offers appropriate experiences in music, movement, art, and drama for use in school age child care settings. Reviews theories of adolescent growth and development.

**CHD 212 Adolescent Child Growth and Development**  
3 Credits

Studies in a lecture/laboratory setting the physical, social, emotional and cognitive development of children 8-15 years old.

**CHD 213 Infant/Toddler Care Programming**  
3 Credits

Studies the physical, social, emotional and cognitive development of children 0-36 months old in a lecture/laboratory setting.

**CHD 216 The Exceptional Child**  
3 Credits

Provides an introduction to caring for the exceptional child. Includes theories and practices for producing optimal developmental growth. Develops teaching techniques. Explores public policy, mainstreaming, early intervention and IEPs. Explores the types of exceptional children and how to help them.

**CHD 217 Skills for Parenting**  
3 Credits

Focuses on skill development to increase parental effectiveness in understanding young children, building their self-esteem, communicating with them, setting appropriate boundaries and nurturing children's emotional and social development.

**CHD 218 Introduction to In-Home Care****3 Credits**

Reviews child care offered in a home-like setting. Includes providing safe, healthy learning environments in the home setting, parent-provider relationships and recommendations for developing a professional support system.

**CHD 221 Emerging Literacy in Young Children****3 Credits**

Provides understanding of the development and acquisition of language. Explores and evaluates literature for young children. Introduces audio-visual material, methods, techniques and various types of equipment which are utilized in early childhood programs.

**CHD 225 Cognitive Curriculum****3 Credits**

Reviews cognitive theories to develop appropriate problem solving, math, science and social studies skills in early childhood settings. Reviews multi-cultural education.

**CHD 230 Child Development Practicum III****4 Credits**

Provides opportunity for practical experience through observation and supervised participation in child care settings.

**CHD 231 Seminar II - Issues in Early Childhood Education****2 Credits**

Companion course to CHD 230. Focuses on the integration of knowledge and practices in the field of early childhood and explores issues in early childhood.

**CHD 240 Child Development Associate Preparation****3 Credits**

Meets requirements of the Council for Early Childhood Professional Recognition for academic preparation for the Child Development Associate credential. Provides students with the theoretical knowledge to support competent performance in a child care setting. Provides review of CDA competencies.

**CHD 242 Curriculum Planning for Early Childhood Administrators****3 Credits**

Presents an overview of cognitive and creative curriculum from a developmentally appropriate perspective. Emphasizes planning and evaluating curriculum to meet comprehensive needs of the young child.

**CHD 281-293 Special Topics in Child Development****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**CIS 101 Introduction to Microcomputers****3 Credits**

Introduces the physical components and operations of microcomputers. Focuses on computer literacy and provides hands-on training in three areas of microcomputer application software: word processing, electronic spreadsheets and database management.

**CIS 102 Data Processing Fundamentals****3 Credits**

Introduces data processing and programming with emphasis on hands-on computer experience. Examines the role of data processing in an organization, including data processing applications, computer hardware and software, internal data representation, stored program concepts, systems and programming design, flowcharting and data communications. Reviews the history of computers, related computer careers, the social impact of computers and computer security.

**CIS 104 Introduction to COBOL Programming****3 Credits**

Provides an introduction to COBOL (Common Business Oriented Language) with major emphasis on developing structured programming skills. Develops proficiency in applying the programming development cycle to elementary business problems.

**CIS 105 Operating Systems****3 Credits**

Studies computer operating systems, purposes, structure and various functions. Provides general understanding of how comprehensive sets of language translators and service programs, operating under supervisory coordination of an integrated control program, form the total operating systems of a computer.

**CIS 106 Microcomputer Operating System****3 Credits**

Introduces the organization, structure and functions of an operating system for a microcomputer. Presents the student with operating system concepts such as commands, error messages, interrupts, function calls, device drivers, structure, files and organization. Incorporates concepts into practical applications.

**CIS 107 Microcomputer Programming****3 Credits**

Introduces a structured microcomputer language. Concepts in input/output commands, arithmetic expressions, conditional control, iteration techniques and subroutines will be stressed. Concepts will be incorporated into the application of solving business problems.

**CIS 109 UNIX Operating System****3 Credits**

Studies the UNIX V Operating System and its use as a time-sharing operating system. Includes basic UNIX commands, use of the visual editor, the UNIX directory structure and file management with SHELL commands. Offers opportunities to apply skills and knowledge in a laboratory environment.

**CIS 110 Basic Programming Language****3 Credits**

Introduces concepts of program design and programming using the BASIC programming language, a popular language for use with microcomputers. Includes overview of basic arithmetic operations, accumulating and printing totals, comparing, array processing and interactive programming. Offers students an opportunity to apply skills in a laboratory environment.

**CIS 113 Logic, Design and Programming****3 Credits**

Introduces the structured techniques necessary for efficient solution of business-related computer programming logic and coding solutions into a high-level programming using a microcomputer. Reviews algorithm development, flowcharting, input/output techniques, looping, modules, selection structures, and control breaks. Offers students an opportunity to apply programming skills in a laboratory environment using the QBasic language, a popular language for use with microcomputers.

**CIS 115 Electronic Spreadsheets in Business****3 Credits**

Provides conceptual and hands-on instruction in the use of spreadsheet software including worksheet, graphics and database operations with applications to the solution of business problems.

**CIS 201 Database Design & Management****3 Credits**

Introduces program applications in a database environment and includes discussion of data structures; indexed and direct file organizations; data models, including hierarchical, network, and relational; storage devices, data administration and analysis; design and implementation. Allows students to use database software in creating, modifying, retrieving and reporting from databases. Develops business application using a database language.

**CIS 202 Data Communications****3 Credits**

Introduces concepts of data communications for computer programming students to build a foundation of knowledge upon which to add new technologies.

**CIS 203 Systems Analysis and Design****3 Credits**

Provides instruction for creating or modifying a system by gathering details, analyzing data, designing systems to provide solutions and implementing and maintaining the systems.

**CIS 204 Advanced COBOL Programming****3 Credits**

Continues topics introduced in Introduction to COBOL with more logically complex business problems. Develops a higher level of COBOL proficiency, as well as greater familiarity with debugging techniques. Uses the structured approach through class instruction and laboratory experience.

**CIS 205 Database Design****3 Credits**

Introduces program applications in a database environment with emphasis on loading, modifying and querying the database by means of a host language (COBOL). Discusses data structures, indexed and direct file organizations, models of data, including hierarchical, network and relational, storage devices, data administration and analysis, design and implementation.

**CIS 206 Systems Development with High-Level Tools****3 Credits**

Analyzes established and evolving methodologies for the development of business-oriented computer information systems. Develops competencies in techniques that apply modern software tools to generate applications directly, without requiring detailed and highly technical program writing efforts.

**CIS 207 Microcomputer Database Management Systems****3 Credits**

Presents an overview of relational, hierarchical and network database models with emphasis on microcomputer relational database management systems (DBMS). Provides practical experience in using database software to create, modify, retrieve and report. Develops business applications using the database language.

**CIS 208 Electronic Spreadsheets****3 Credits**

Presents an in-depth study of an electronic spreadsheet. Focuses on business applications using menu commands, formulas, functions, macro commands, graphs, printing, database and file operations.

**CIS 209 Computer Business Applications****3 Credits**

Requires students to apply business, microcomputer and communication skills within business applications. Emphasizes application of several forms of computerized information processing including data processing, word processing, spreadsheets, graphics and communications. Analyzes the effects of automation on the office worker, management and the work environment and requires written and oral presentations.

**CIS 210 COBOL III****3 Credits**

Emphasizes file handling techniques on tape and direct access devices and the use of libraries via the COBOL CALL and COPY verbs. Introduces variant forms of the structured approach and unstructured concepts such as the GO TO verb. Helps students develop good programming practices and an entry-level COBOL competency.

**CIS 211 RPG Programming Fundamentals****3 Credits**

Provides a general introduction to the RPG programming language with emphasis on hands-on programming experience. Presents the most important features of the RPG language from input/output processing to applications requiring handling. Introduces language concepts in class lecture. Includes programming lab assignments.

**CIS 212 "C" Programming****3 Credits**

Provides a basic understanding of the fundamental concepts involved when using a low development language. Emphasizes one logical program design using a modular approach involving task-oriented program functions. Discusses the role of data types, storage classes and addressable memory locations.

**CIS 213 Assembler Language Program****3 Credits**

Gives students a basic understanding of the assembler process using IBM mainframe computers. Stresses the importance of byte-wise manipulation of data fields when using low-level languages. Emphasizes the actual workings of a computer during the execution of a computer program. Discusses the role of data types, EBCDIC format of data storage and addressable memory locations.

**CIS 214 Pascal Programming****3 Credits**

Provides a basic understanding of the structured programming process necessary for successful Pascal programming. Emphasizes top down program design and modularity, using Pascal procedures, functions and independent subprograms. Discusses simple and advanced data types and program control aids, algorithm development and program debugging. Provides students with a fundamental understanding of good programming technique and a basic knowledge of Pascal syntax and structure.

**CIS 215 Field Study****4 Credits**

Provides opportunity for a field project or research case study within the computer technology field. Includes collection and analysis of data and/or actual work experience in business or industry.

**CIS 216 Advanced RPG Programming****3 Credits**

Offers advanced study in the use of the RPG compiler language in solving business problems. Focuses on file processing methods and a working knowledge of advanced features and techniques through laboratory experience.

**CIS 218 Shell Command Language****3 Credits**

Teaches students how to write, test and debug shell procedures on a computer utilizing a UNIX operating system. Presents the shell and how it works, shell processes, variables, keyword and positional parameters, control constructs, special substitutions, pipelines, debugging aids, error/interrupt processing and shell command line. Offers students the opportunity to apply skills in a laboratory environment.

**CIS 221 Advanced C+ Programming****3 Credits**

Continues those topics introduced in -C+ Language Programming with emphasis on array processing, file processing and advanced debugging techniques. Provides the opportunity to apply skills in a laboratory environment.

**CIS 222 Office Automation****3 Credits**

Presents a perspective on the needs, potentials and urgencies of systems to support modern office functions. Concentrates on structured analysis and design of hardware/software systems for creating, maintaining, printing and communicating data files utilizing text processing systems. Covers methodologies for creating procedures to produce letters and reports from data files. Incorporates concepts and techniques into practical applications.

**CIS 223 Integrated Business Software****3 Credits**

Presents knowledge of integrated microcomputer software concepts. Students design a complete business system utilizing all parts of an integrated microcomputer software package which can share the same data and manipulate it. Includes use of word processing, electronic spreadsheets, graphics, databases and command language.

**CIS 224 Hardware and Software Troubleshooting****3 Credits**

Presents an in-depth analysis of the components of a computer system and their relationship to each other. Includes concepts of parallel and serial connectivity, installation and maintenance of software, peripheral devices, interface cards and device drivers. Analyzes realistic hardware/software problems encountered in the workplace and techniques and procedures used to implement solutions.

**CIS 225 Advanced Database Management Systems****3 Credits**

Continues CIS 207 Microcomputer Database Management Systems. Emphasizes the development of advanced applications in database management.

**CIS 226 Advanced Electronic Spreadsheets****3 Credits**

Continues CIS 208 Electronic Spreadsheets. Emphasizes the advanced application of electronic spreadsheets.

**CIS 227 Topics in Information Management****3 Credits**

Discusses topics of current interest in information management. Focuses on special interest projects. Utilizes field trips, guest speakers, audio-visual activities and seminars.

**CIS 228 Cooperative Education****1-9 Credits**

Provides students with the opportunity to apply concepts learned in the classroom to actual work situations. Requires program advisor approval.

**CIS 229 Seminar I****1 Credit**

Discusses topics of current interest in computerized information management with an emphasis on the application of information management skills during lab time. Various seminar topics may be identified and offered each term under this course number.

**CIS 230 Seminar II****2 Credits**

Discusses topics of current interest in computerized information management with emphasis on application of information management skills during lab time. Identifies and offers various seminar topics each term under this course number.

**CIS 232 Visual Basic Programming****3 Credits**

Provides a basic understanding of fundamental concepts involved when using a member of a Windows programming development language. Emphasizes logical program design using a modular approach involving task-oriented program functions. Allows the design of a Windows user interface constructed in an erector-set-like fashion. Builds an application by selecting forms and controls, assigning properties and writing code.

**CIS 233 Graphic User Interfaces: Windows****3 Credits**

Provides a foundation of fundamental concepts in the use of Windows-type software. Explores the Windows operating system, accessories and various applications. Develops a proficiency with Windows operations including customizing the environment, integrating applications and managing files.

**CIS 234 XBase Programming Language****3 Credits**

Provides a basic understanding of the fundamental concepts involved when using a high-level development database language. Emphasizes logical program design using a modular approach. Provides a sound foundation of fundamental concepts, such as the XBase functions.

**CIS 235 Local Area Networks****3 Credits**

Studies local area networks, their topologies and functions. Provides a general understanding of the basic LAN protocols. Covers utilization of application software using a local area network to share resources among network members, transferring files between users, set-up and administration of a network, identification of hardware and software needs and LAN to mainframe connectivity.

**CIS 240 Introduction to Computer Integrated Manufacturing**  
**3 Credits**

Includes the study of all major components of computer-integrated manufacturing (business, engineering and shop floor) as an integrated whole. Includes the planning of a project which will be formally documented and presented by the students and implemented in CIS 241.

**CIS 241 Computer-Integrated Manufacturing Project**  
**3 Credits**

Covers the major components of computer-integrated manufacturing (business, engineering and shop floor) as an integrated whole. Covers advanced CIM applications and includes the implementation of a project in a realistic CIM environment.

**CIS 280 Co-op/Internship**  
**1-6 Credits**

Provides students with the opportunity to work at a job site that is specifically related to their career objectives. Provides on-the-job experience while earning credit toward an associate degree.

**CIS 281-293 Special Topics in Computer Information Systems****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**CTR 114 Institutional Catering**  
**3 Credits**

The fundamentals of catering: the business of supplying food, goods, and organized service for public and private functions. Includes staffing, equipment, transportation, contracting, special arrangements, beverage service, and menu planning. Also covers cold food preparation and presentation techniques.

**CTR 214 Catering Administration**  
**3 Credits**

This course teaches the correct procedures in event bookings, contracts, recordkeeping and event follow-up. In addition, fringe services, human resource issues and cost control concepts.

**CUL 105 Institutional Food Service**  
**2 Credits**

Introduces students to the variety of institutional food service facilities. Includes converting recipes for quantity food

production, calculating per portion cost and determining profitable selling price.

**CUL 110 Meat Cutting**  
**2 Credits**

Purchasing, receiving, aging and proper storage procedures will be identified. Emphasis will be placed on primal cuts and sub-primal cuts, federal inspection, grading, yields, and the classifications of meats, poultry, and game.

**CUL 202 Specialized Cuisine**  
**3 Credits**

Introduces students to foods from various cultures. Provides a background in the history of foods from various countries and develops food preparation skills. Covers table service and table side food preparation.

**CUL 204 Classical Pastries**  
**3 Credits**

Familiarizes students with Classic French, Italian and European desserts. Discusses names and terminology of desserts. Includes the preparation of goods such as puff pastry, specialty cookies, ganache, parlmosa creams and fillings and specialty sauces. Emphasizes size, consistency, presentation, eye appeal and taste of pastries.

**CUL 205 Fish and Seafood**  
**2 Credits**

Familiarizes students with professional techniques in identifying, purchasing, handling, storing, marketing, and preparing fish and seafood.

**CUL 206 Externship**  
**3 Credits**

Provides students with practical work experience in chosen areas of specialization.

**CUL 211 Classical Cuisine**  
**3 Credits**

Presents advanced and sophisticated classical culinary methods following the principles and techniques of Escoffier. Studies cooking techniques, timing, presentation, history and terms pertaining to classical foods and menus, with emphasis on French cuisines. Provides practical experience in table service operation, kitchen coordination and timing.

**CUL 212 Fish and Seafood**  
**2 Credits**

Discusses the importance of fish and seafood in today's market. Includes types and categories of American and imported fish and shell fish, and proper buying, storage, preparation and merchandising of fish and seafood. Provides experience in boning, cutting and cooking methods appropriate for seafood.

**CUL 288 Special Topics in Culinary Arts Technology**  
**1-5 Credits****DCT 104 Product Drafting**  
**3 Credits**

Introduces the set concept of working drawings both in detailing and assembly. Presents fastening devices, thread symbols and nomenclature, surface texture symbols, classes of fits, and the use of parts lists, titles and revision blocks. Introduces the basics of product design and the design process.

**DCI 105 Facilities Design and Layout****3 Credits**

Focuses on the architectural drawings of commercial or industrial buildings. Covers problems of space planning, design, materials, HVAC systems and construction methods. Develops working drawings and presentation drawings. Requires oral presentations and discussions. Requires students to complete research on a limited number of construction materials and methods.

**DCI 109 Construction Materials and Specifications****3 Credits**

Introduces various construction materials, composition and application. Studies specifications of materials, construction contracts and applications required in the building industry.

**DCI 113 Intermediate CAD****3 Credits**

Continues study of CAD fundamentals. Focuses on advanced CAD features and various methods of customizing CAD systems.

**DCI 201 Schematic Drafting****3 Credits**

Presents the systematic layout of various types of schematic drawing done by a draftsman. Requires students to prepare finished drawings for manufacture or installation of plumbing, heating, electrical, electronic and fluid-power type drawing.

**DCI 202 CAD Programming Language****3 Credits**

Covers use of AutoLISP programming language to customize AutoCAD programs and menus. Students will learn to execute macros and simple LISP programs.

**DCI 204 Architectural CAD****3 Credits**

Presents advanced computer-aided design topics, including architectural design. Includes all necessary drawings needed for the construction process.

**DCI 206 Mechanical and Electrical Equipment****3 Credits**

Focuses on mechanical and electrical requirements for a structure. Studies electrical load calculations, wire sizing and circuits. Calculates plumbing requirements, fixture units and pipe sizing. Includes heating systems, duct layout and sizing.

**DCI 208 Structural Detailing****3 Credits**

Focuses on detailing commercial structural members, their connections, materials and methods of construction. Concentrates on traditional materials, such as reinforced concrete, masonry, steel and timber.

**DCI 210 Surveying I****3 Credits**

Introduces surveying equipment, procedures for performing measurements, turning angles, determining grades and other field applications. Covers surveying techniques and computations using the level, chain and transit in calculating areas, lines and grades.

**DCI 213 CAD Mapping****3 Credits**

Covers the concepts of map making with computer-aided drafting and typical drafting media found in the industry. Studies civil engineering applications of mapping procedures including profiles, topography and site plans.

**DCI 216 Jig and Fixture Design****3 Credits**

Introduces the processes of drafting and design as applied to tooling. Emphasizes tooling, locators, supports, holding devices, clearances and design as it pertains to jig and fixtures.

**DCI 217 Product Design****3 Credits**

Provides the student an opportunity to apply all previously acquired knowledge in product drafting to the design of a new or existing consumer product. Considers the function, esthetics, cost economics and marketability of the product. Requires a research paper and product illustration.

**DCI 228 Civil I****3 Credits**

Explores the engineering field. Presents an overview of infrastructure design, including the study of roadways and drainage systems. Emphasizes site development and highway planning.

**DCI 229 Civil II****3 Credits**

Presents construction management techniques, including scheduling and contracts. Studies soil properties and paving methods. Examines practical construction considerations.

**DCI 230 Fundamentals of Computer Animation****3 Credits**

Covers the fundamentals involved in the creation of computer renderings and animation utilizing 3 dimensional software. 3D Studio™ will be studied and implemented to create quality images and animations from 3 dimensional geometry. Topics covered include an introduction to the 3D Studio™ interface and its 5 modules, color and motion theory, and animation concepts through and on exercises.

**DSN 221 Statics****3 Credits**

Studies applied mechanics dealing with bodies at rest. Covers units, vectors, forces, equilibrium, moments and couples, planar force systems, distributed forces, analysis of structures (trusses and frames) and friction.

**DSN 222 Strength of Materials****3 Credits**

Studies internal stresses and physical deformations caused by externally applied loads to structural members. Covers stress and strain, shear stress, properties of areas, shearing force and bending moment, deformation of beams, columns and combined stresses. Teaches various materials physical and mechanical properties.

**ELT 100 Circuits I****4 Credits**

This course is the study of electrical principles and laws pertaining to DC circuits. The relationship of passive components when used in simple and complex circuits are analyzed. Ohm's law, Kirchhoff's laws, ammeters, voltmeters, ohmmeters, capacitance, and power are discussed. Magnetism, magnetic induction, inductance and AC principles are introduced. Hands-on laboratory experience in understanding understanding electrical principles is stressed. Soldering and fabrication techniques are discussed and practiced, culminating with a project fabricated and tested by the student. Pre-requisite MAT 111, pre or co-requisite MAT 131.

**ELT 100 Circuits II****4 Credits**

This course is the study of electrical principles and laws pertaining to alternating current and voltage. DC and AC network theorems, j operator, phasors, reactances, impedances, phase relationships, power, resonance, transformers, polyphase and filter circuits are studied. Pre-requisite ELT 100, pre or co-requisite MAT 132 is recommended, but not required.

**ELT 103 Digital Principles****3 Credits**

Introduces digital electronics, including logic gates and combinational logic circuits. Studies binary arithmetic, Boolean algebra, mapping techniques, digital encoders and decoders, multiplexers and demultiplexers and arithmetic circuits. Uses SSI and MSI digital integrated circuits. Pre-requisite BSA 032, pre or co-requisite BSA 025, MAT 111.

**ELT 105 Solid State I****4 Credits**

Studies characteristics and applications of semiconductor devices and circuits. Covers signal and rectifying diodes, bipolar transistors, rectification, single and multistage amplifiers, AC/DC load lines, biasing techniques, equivalent circuits and power amplifiers. Pre or co-requisite ELT 101.

**ELT 106 Digital Applications****4 Credits**

Offers advanced study of digital systems, including memory and D/A and A/D conversion. Covers construction of specified timing circuits, design driver/display systems, selected register design, counters and arithmetic circuits and validation of operation. Studies hardware and general microprocessor system organization. Pre or co-requisite ELT 101 and ELT 105; Pre-requisite ELT 103

**ELT 201 Solid State II****4 Credits**

Studies applications of special-purpose diodes, thyristors and unipolar transistors. Discusses frequency effects and response of amplifiers. Includes discrete SCRs, UJTs, FETs, oscillators, linear regulated power supplies, switching regulators and power amplifiers. Introduces op-amps. Pre-requisite ELT 105, co-requisite ELT 288.01.

**ELT 202 Microprocessors****4 Credits**

Introduces microprocessor system organization, operation, design, troubleshooting and programming. Investigates and analyzes a microprocessor instruction set for its operation. Includes programming and interfacing a microprocessor. Pre-requisites ELT 105 and TEC 104.

**ELT 203 Introduction to Industrial Controls****3 Credits**

An overview of electronics as applied in the industrial setting. Introduction to various applications of industrial systems and how electronics is applied to these systems. Introduces power electronics, ladder logic, digital control, DC power supplies, SCRs and other thyristors. Variable speed control for DC and AC motors will be covered. Standby power supplies will be introduced. Pre-requisite ELT 106 and 223, pre-or co-requisite ELT 201 and 288.01

**ELT 214 Industrial Instrumentation****3 Credits**

This is a hands-on, intensive lecture/lab course which emphasizes

precision measurement via temperature, pressure, strain, pH, force, flow and level gauges. Instruction will cover the related probes, sensors, transducers, computer interfaces, computer hardware and peripherals, and computer software necessary for the acquisition, summarization, analysis and presentation of data. Process control for temperature, pressure, flow and level will be introduced. Pre-requisite or co-requisite ELT 201 and ELT 288.01.

**ELT 223 Electrical Machines****3 Credits**

Provides an overview of electrical machines and how they relate to industrial electronics. Gives industrial electronics technicians insight into electrical power generation, polyphase system, transformers, all types of electrical motors, power factor and power factor correction, back-up power and electrical power monitoring. Pre-requisite ELT 101.

**ELT 227 Peripherals****3 Credits**

Studies peripherals and their interfacing with computers and microcomputers. Includes a study of data communications hardware and techniques. Studies the design of circuits to interface microprocessors with industrial equipment. Includes microcomputer systems interfacing with input and output transducers for control systems. Studies techniques for logical troubleshooting of microcomputer systems. Pre-requisite TEC 104, ELT 105 and 106, pre or co-requisite ELT 202.

**ELT 228 Communications Electronics****3 Credits**

Analyzes communication circuits with emphasis on AM, FM, SSB and stereo transmitter and receiver systems. Includes noise, modulation and demodulation principles, phase-locked loop, RF amplifiers, automatic gain control, detectors, limiters and discriminators. Offers hands-on lab exposure to analog circuits utilizing analysis and troubleshooting techniques. Pre-requisite ELT 105, pre or co-requisite ELT 201 and 288.01.

**ELT 229 Telecommunications****3 Credits**

Examines various methods in transmitting digital data from one location to another. Covers time and frequency division multiplexing. Includes pulse-code and delta modulation, telemetry, error detection and correction and simple networks. Covers techniques for logical troubleshooting of telephonic systems. Pre-requisite TEC 104, ELT 105 and 106, pre or co-requisite ELT 202.

**ELT 230 Advanced Communications Electronics****3 Credits**

Introduces antenna principles and wave propagation and an in-depth study of matching techniques for transmission lines. Measures radiation patterns with different antenna arrays. Includes the Smith Chart and a thorough study of television operation. Practices digital and analog troubleshooting and signal tracing techniques on a color TV set. Pre-requisite ELT 228.

**ELT 231 Microwave Communications****3 Credits**

This course will include an overview of microwave transmission lines, waveguide components and systems. To include satellite earth stations, microwave relay systems and radar. Optic fibers and lasers as they relate to microwave, will also be covered. Pre-requisite ELT 228.

**ELT 280 Co-op/Internship****1-6 Credits**

Provides students the opportunity to work at a job site that is specifically related to their career objectives. Provides on-the-job experience while earning credit toward an associate degree.

**ELT 281-293 Special Topics in Electronics Technology****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area.

**ELT 288.01 Special Topics in Solid State****1 Credit**

Introduction to Operational Amplifiers (Op Amps), characteristics and operations. Covers inverting and noninverting amplifiers, differential amplifiers, waveform generation, linear regulators, switching regulators and voltage comparators.

Pre-requisite ELT 105; co-requisite ELT 201

**ENV 104 Plant Operations-Sanitary****3 Credits**

Provides the basic principles of aerobic and anaerobic biological treatment processes, including activated sludge, trickling filters, lagoons, sludge handling and disinfection. Reviews state and federal regulations related to wastewater plants.

**ENV 208 Plant Operations-Industrial****3 Credits**

Covers wastewater treatment processes including coagulation, sedimentation, activated sludge, neutralization, equalization, cyanide and chromate removal. Presents instrumentation, maintenance and troubleshooting. Includes operations, laboratory testing and associated mathematics.

**FST 104 Food Production, Methods, and Procedures****3 Credits**

Provides study of and application of food production methods and procedures with an emphasis on soups, sauces and gravies.

**FST 105 Quality Service Standards****3 Credits**

Provides students with techniques of serving, bussing and cashing in dining operations.

**FST 106 Application of Food Service Production I****3 Credits**

Provides the knowledge and applications of the principles of pantry production, baking, vegetable and fruit preparation, pastries and breakfast cookery.

**FST 108 Application of Food Service Production II****3 Credits**

Provides knowledge and application of production methods and procedures for meat, seafood, poultry, dairy products and hot hors d'oeuvres.

**FST 109 Computer Food Service Spreadsheets****3 Credits**

Introduces microcomputers and specific food service applications. Covers basic procedures for food service spreadsheet applications involving analysis and reporting using Lotus 1-2-3 or compatible software.

**GRA 202 Science of Color****3 Credits**

Presents physical properties of light, and color and psychological aspects of color perception and relationships through creative exercises. Examines color theories of Itten, Munsell, Goethe, Chevreul and Albers.

**HEA 101 Heating Fundamentals****3 Credits**

Introduces fundamentals applicable to the heating phase of air conditioning. Includes types of units, parts, basic controls, functions and applications. Emphasizes practices, tools and meter uses, temperature measurement, heat flow, and tubing installation and connecting practices.

**HEA 103 Refrigeration I****3 Credits**

Introduces compression systems used in mechanical refrigeration, including the refrigeration cycle. Introduces safety procedures and proper uses of tools used to install and service refrigeration equipment.

**HEA 104 Heating Service****3 Credits**

Covers procedures used to analyze mechanical and electrical problems encountered when servicing heating systems, including gas, oil, electric and hydronic heating equipment. Considers electrical schematic and diagrams, combustion testing, venting and combustion air requirements, installation and service procedures.

**HEA 106 Refrigeration II****3 Credits**

Continues Refrigeration I with further study of basic system components and an introduction to troubleshooting procedures. Includes clean-up procedures following compressor burn-out and analysis of how a single problem affects the rest of the system.

**HEA 107 Duct Fabrication & Installation****3 Credits**

Emphasizes reading blueprints common to the sheet metal trade, floor plans, elevations, section, detail and mechanical plans. Requires students to develop a layout of an air conditioning system, layout of duct work and fittings and fabrication of these parts, including proper use of hand-tools and shop equipment used to fabricate duct work and fittings.

**HEA 201 Cooling Service****3 Credits**

Covers procedures used to diagnose electrical control problems found in residential air conditioning and refrigeration systems, including 24-volt and line voltage controls such as defrost timers, defrost heaters, relays and cold controls with emphasis on schematic and pictorial diagrams.

**HEA 202 Electrical Circuits & Controls****3 Credits**

Studies various kinds of heating, air conditioning and refrigeration controls. Includes gas, oil, cooling and electric heat controls, thermostats and other kinds of variable controls such as humidistats, aquastats and electronic thermostats and temperature controls. Covers operation of controls and how they are integrated into complex systems by using schematic and pictorial diagrams. Presents component troubleshooting and testing.

**HEA 204 Commercial Refrigeration**  
3 Credits  
Examines air conditioning and refrigeration systems for commercial use, including medium- and low-temperature applications. Includes refrigeration accessories, metering devices and advance control arrangements.

**HEA 205 Heat Pump Systems**  
3 Credits  
Provides an understanding of the different types of heat pumps available for use today. Familiarizes students with the refrigeration cycle as it applies to the heat pump systems. Provides students with the opportunity to draw, trace and follow an electrical schematic of a heat pump with refrigerant. Includes selecting the proper heat pump, recording heat loss and gain calculations for the space available. Provides instruction in mechanical components and in troubleshooting a non-functioning heat pump.

**HEA 206 Advanced Cooling Service**  
3 Credits  
Considers methods of troubleshooting electrical and mechanical components of commercial and industrial air conditioning including chillers used in high and low pressure systems.

**HEA 212 Advanced HVAC Controls**  
3 Credits  
Covers control systems beyond ordinary residential and single zone commercial applications. Includes solid state controls, zoning controls, modulating controls, low ambient controls, heat recovery and energy management controls, economizer controls and pneumatic controls.

**HEA 213 Sales and Service Management**  
3 Credits  
Encompasses the use of blueprints, specifications, AIA documents, application data sheets, bid forms and contracts in estimating materials and labor in the HVAC business. Includes advertising, direct labor, indirect labor, overhead, warranty overages, taxes, permits, subcontracts, margins, mark-ups and profit. Provides students with the opportunity to estimate service contracts and study service organization, service procedures, record keeping, parts inventory control and insurance liability.

**HEA 220 Distribution Systems**  
3 Credits  
Covers methods used in calculating building envelop heat loss and gain in sizing units for residential and light commercial application. Studies the relationship of air properties to temperature and the design of systems for residential and light commercial structures. Includes the sizing and configurations of air delivery duct systems.

**HEA 221 Heat Pumps and Cooling Service**  
3 Credits  
Covers procedures used to diagnose electrical control problems found in residential air-to-air, geothermal heat pump and cooling systems, including 24 volt and line voltage controls. Familiarizes students with the refrigeration cycle as it applies to the heat pump. Covers correct charging procedures and sizing of heat pumps. Includes trouble-shooting of heat pumps and cooling systems such as defrost timers, defrost heaters, relays and cold controls with emphasis on schematic and pictorial diagrams.

**HHS 101 Medical Terminology**  
3 Credits  
Addresses basic terminology required of the allied health professional. Presents Greek and Latin prefixes, as well as suffixes, word roots and combining forms. Emphasizes forming a solid foundation for a medical vocabulary including meaning, spelling and pronunciation. Includes medical abbreviations, signs and symbols.

**HHS 102 Medical Law and Ethics**  
2 Credits  
Presents ethics of medicine and medical practice, as well as legal requirements and implications for allied health professions.

**HHS 103 Dosage Calculation**  
1 Credit  
Introduces the mathematical concepts required of the allied health professional to accurately administer medications.

**HHS 104 CPR and Basic Health Awareness**  
1 Credit  
Provides students with information necessary to recognize the need for one and two person cardiopulmonary resuscitation (CPR) as it relates to adults, children and infants. Requires students to safely perform CPR.

**HMS 101 Introduction to Human Services**  
3 Credits  
Explores the history of human services, career opportunities and the role of the human service worker. Focuses on target populations and community agencies designed to meet the need of various populations.

**HMS 102 Helping Relationship Techniques**  
3 Credits  
Examines the helping process in terms of skills, helping stages and issues involved in a helping relationship. Introduces major theories of helping.

**HMS 103 Interviewing and Assessment**  
3 Credits  
Develops skills in interviewing and provides a base for students to build personal styles. Introduces a variety of assessment approaches and treatment planning. Utilizes case studies and recording exercises.

**HMS 104 Crisis Intervention**  
3 Credits  
Provides beginning training for individuals presently working with people in crisis situations or planning to do so.

**HMS 105 Criminal Justice Systems**  
3 Credits  
Introduces the study of crime and criminals and how society is affected.

**HMS 106 Physiology of Aging**  
3 Credits  
Focuses on the physical changes and common pathologies associated with the aging process. Includes the psychological and social implications of changes for human behavior. Focuses on health promotion and disease prevention.

**HMS 107 Human Services Topical Seminar****3 Credits**

Discusses topics of current interest in human services. Focuses on special interest projects for students in human services.

Utilizes field trips, guest speakers, audio-visual activities and seminars.

**HMS 108 Psychology of Aging****3 Credits**

Covers the major behavioral changes in adulthood and aging.

**HMS 109 Families in American Culture****3 Credits**

Covers the impact of change on the role and function of the modern family, the nature of the socialization process and socio-economic, cultural and ethnic factors that nurture or inhibit the family's capacity to function.

**HMS 111 L.T.C. Activity Director****3 Credits**

Explores the philosophy and investigates the development of therapeutic activity programs for residents living in nursing homes. Focuses on offering activities which meet an individual's physical, social and emotional needs.

**HMS 112 Recreation for Special Populations****3 Credits**

Studies the nature and etiology of impairments including developmental disabilities, mental illness, physical disabilities and geriatrics and their potential impact upon an individual's ability to participate in recreational activities. Explores techniques needed to conduct a recreation program which allows successful participation by an individual with a disability.

**HMS 113 Problems of Substance Abuse in Society****3 Credits**

Provides basic information about alcohol and drugs and the laws which pertain to their abuse. Explores current attitudes and practices which pertain to alcohol and drug use, misuses and dependence.

**HMS 114 Social Services in Long-Term Care****3 Credits**

Provides practical and useful information about aging and institutionalization. Focuses on the role of social services within the long-term care facility.

**HMS 120 Health and Aging****3 Credits**

Provides holistic overview of the physical, psychological and social needs of individuals who live in extended care facilities. Examines effective treatment modalities to meet the resident's various needs.

**HMS 122 Introduction to Residential Treatment****3 Credits**

Introduces information, skills and attitudes necessary to become an effective worker in residential treatment. Explores basic developmental needs, planning and use of activities, and issues related to the team approach. Discusses and demonstrates observation and recording of behavior.

**HMS 130 Social Aspects of Aging****3 Credits**

Covers major theories and patterns of aging in American society.

Covers social institutions and cultural factors that affect the aging process.

**HMS 140 Loss and Grief****3 Credits**

Provides practical and useful information for anyone who has experienced a loss. Addresses the problems of loss and grief and how to develop coping skills.

**HMS 150 Special Population Needs and Activities****3 Credits**

Recognizes and utilizes social activities and recreation as a viable form of therapeutic intervention based on the client's limitations or special needs.

**HMS 201 Internship I****4 Credits**

Provides field work experience in an approved social, educational, law enforcement, corrections or other community service organization. Requires 12 to 14 hours of work experience each week.

**HMS 202 Internship II****4 Credits**

Continues Internship I. Requires 12 to 14 hours of work experience each week.

**HMS 203 Internship Seminar I****3 Credits**

Permits small group discussion and analysis of the human services practicum experience. Includes special learning objectives related to the kind of work students do after completing the program.

**HMS 204 Internship Seminar II****3 Credits**

Continues Internship Seminar I with different learning objectives. Relates objectives to the work the student will do after completion of the program.

**HMS 205 Behavioral/Reality Techniques****3 Credits**

Focuses on theories of behavioral and reality approaches. Develops understanding of terms and practical applications of the behavioral and reality approaches used in working with people.

**HMS 206 Group Process and Skills****3 Credits**

Studies group dynamics, issues and behavior. Includes group functioning and leadership, guidelines on working effectively with a co-leader and practical ways of evaluating the group process.

**HMS 207 Program Planning/Policy****3 Credits**

Deals with the components of administration of human service agencies. Addresses practitioner skills needed by administrators or supervisors. Discusses social policy issues and impact on human services.

**HMS 208 Treatment Models of Substance Abuse****3 Credits**

Describes the various treatment models used with chemically dependent clients. Discusses intervention and treatment models for chemical dependency and their role in the recovery process.

**HMS 209     Counseling Issues****3 Credits**

Explores practice strategies for counselors of chemically dependent clients.

**HMS 210     Co-dependency****3 Credits**

Presents definitions of co-dependency and issues related to it. Teaches skills and techniques to confront co-dependent behavior.

**HMS 215     Juvenile Delinquency****3 Credits**

Provides an overview of the concepts, definitions and measurements of juvenile delinquency. Explores various theories which attempt to explain causes of delinquency. Looks at the role of environmental influences (peers, gangs, school, drugs, etc.) contributing to delinquency. Discusses history and philosophy of the juvenile justice system as well as ways to control and treat juvenile delinquents.

**HMS 220     Legal Aspects****3 Credits**

Provides an overview of the legal and ethical aspects in the field of human services with implications for the human services worker. Includes liability, confidentiality and privilege, records and rights of clients, due process and equal protection in terms of staff and client, discrimination and witnessing.

**HMS 240     Rehabilitation Process: Probation and Parole****3 Credits**

Provides an understanding of probation and parole as an integral part of the criminal justice system with special emphasis on current and future trends in this area. Explores the role of community corrections and its impact on the role of probation and parole in our society in view of the increase in the number of offenders.

**HMS 281-293     Special Topics in Human Services****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**HMT 100     Occupational Safety and Health Administration (OSHA) Regulations****3 Credits**

Provides a study of the U.S. Occupational Safety and Health Administration's (OSHA) regulations which protect workers from exposure to occupational hazards. Concentrates on researching, interpreting, summarizing and applying the OSHA regulations for workers who handle hazardous materials.

**HMT 104     Hazardous Materials Health Effects****3 Credits**

Reviews research conducted to determine the systematic health effects of exposures to chemicals. Includes determination of risk factors, routes of entry of hazardous materials and their effects on target organs, acute and chronic effects and control measures.

**HMT 120     Hazard Communication Standard****3 Credits**

Provides instruction concerning the development and implementation of a hazard communication program for employees. Provides experience in conducting a chemical

inventory, interpreting Material Safety Data Sheets (MSDSs), developing a written hazard communication program that complies with 29CFR 1910.1200 and conducting an effective hazard communication training program.

**HMT 200 Environmental Protection Agency (EPA) Regulations**  
**3 Credits**

Provides a detailed study of the U.S. Environmental Protection Agency (EPA) regulations pertaining to hazardous waste management, with an emphasis on the requirements of the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA).

**HMT 201     Contingency Planning****3 Credits**

Teaches students to develop an emergency response contingency plan for a facility or community. Includes analyzing the hazards, writing and implementing the contingency plans, training employees for an emergency and evaluating the effectiveness of the contingency plan.

**HMT 203     Sampling Procedures****3 Credits**

Introduces students to a variety of sampling procedures used in industrial settings and for emergency response. Includes sampling and monitoring devices, industrial hygiene monitoring, water and waste stream monitoring, outside air sampling, soil sampling and radiation. Emphasizes collecting and preserving representative samples, interpreting laboratory results and complying with relevant federal regulations.

**HMT 205     Department of Transportation (DOT) Regulations****3 Credits**

Provides a detailed study of the U.S. Department of Transportation (DOT) regulations. Introduces certain Nuclear Regulatory Commission and Environmental Protection Agency regulations pertinent to hazardous materials transportation. Includes problems and case studies in which students identify and interpret applicable DOT regulations and recommend compliance strategies. Provides practical understanding of DOT issues through interviews with local professionals in hazardous materials handling.

**HMT 220     Hazardous Materials Recovery, Incineration and Disposal****3 Credits**

Explains methods of recovery, incineration and/or disposal of hazardous waste. Includes contracting with qualified disposal organizations, obtaining permits and ensuring regulatory compliance of hazardous waste.

**HOS 101     Sanitation and First Aid****3 Credits**

Students develop an understanding of the basic principles of sanitation, safety and first aid (CPR) and are able to apply them in the hospitality operation. This course will also reinforce personal hygiene habits and food handling practices that protect the health of the consumer.

**HOS 102     Basic Foods Theory and Skills****3 Credits**

To develop skills in knife, tool and equipment handling and apply principles of food preparation to produce a variety of food products. To apply knowledge of laws and regulations relating to safety and sanitation in the kitchen.

**HOS 103 Soups, Stocks, and Sauces****3 Credits**

This course will enable the student to identify and prepare soups, stocks, sauces and thickening agents.

**HOS 104 Nutrition****3 Credits**

Introduces the characteristics, functions, and food sources of the major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students will apply the principles of nutrient needs throughout the life cycle and to apply those principles to menu planning and food preparation.

**HOS 105 Introduction to Baking****3 Credits**

Presents fundamentals of baking science, terminology, ingredients, weights and measures, yeast goods, pies, cakes, cookies and quick breads and use and care of equipment. Emphasizes sanitation, hygienic work habits and conformity with health regulations.

**HOS 106 Pantry and Breakfast****3 Credits**

Covers the techniques and skills needed in breakfast cookery, as well as insight to the pantry department. Various methods of preparation of eggs, pancakes, waffles and cereals will be discussed. Students will receive instruction in salad preparation, salad dressings, hot and cold sandwich preparation, garnishes and appetizers.

**HOS 107 Hospitality Computer Systems****3 Credits**

Provides an overview of the information needs of lodging properties and food service establishments; addresses essential aspects of computer systems and computer-based property management systems for both front office and back functions. Focuses on computer-based restaurant management systems for both service-oriented and management-oriented functions.

**HOS 108 Table Service****3 Credits**

Provides students with practical knowledge and skills of restaurant operations. Knowledge and appreciation of the relationship between "front" and "back" of the house is emphasized through operation of an actual food service environment. Quality of service is emphasized through management of the guest experience. Additional course work in tableside cookery, the study of beverages and wines is also taught.

**HOS 109 Hospitality Purchasing****2 Credits**

Studies the overall concept of purchasing and receiving practices in quality hospitality operations, knowledge of quality standards and regulations governing food products to the purchasing function, and proper storage of non-food items.

**HOS 114 Hospitality Organization & Administration****3 Credits**

Analyzes management's functions and responsibilities in such areas as administration, organization, communications, accounting, marketing, and human relations.

**HOS 201 Hospitality Organization and Human Resources Management****3 Credits**

Teaches the necessary skills for proper recruiting, staffing, training and managing employees at various levels in hospitality careers. Emphasizes the organizations evolutionary and problem solving process.

**HOS 202 Garde Manger****3 Credits**

Develop skills in producing a variety of cold food products and helps develop skills to prepare items appropriate for buffet presentations, including decorative pieces.

**HOS 203 Menu, Design and Layout****2 Credits**

Provides the skills needed to apply the principles of menu planning to various types of facilities and services. This course covers menu layout, selection and development and pricing structures. The student will understand and design a restaurant, back and front, using established rules of leading designers and restaurateurs.

**HOS 204 Food and Beverage Cost Control****2 Credits**

Introduces mathematical principles applied to the food service industry and uses skills to complete food related tasks.

**HOS 205 Food and Beverage Cost Controls****2 Credits**

Covers the principles and procedures involved in an effective system of room, food, beverage, labor and sales income. Emphasizes the development and use of standards in the calculation of cost.

**HOS 206 Fundamentals of the Catering Business****3 Credits**

Introduces the fundamentals of owning and operating a small catering business including personal, legal and operational requirements.

**HOS 207 Classical Pastries and Chocolates****3 Credits**

Covers classical French and European desserts. Includes the preparation of goods such as Napoleons, Gateaux St. Honore, petits fours and petits fours sec, ganaches, pastry creams and fillings, sauces, flans and tarts and European sponges. Includes tempering of chocolates, molding and chocolate plastique, preparation of truffles, pastilage and marzipan, short doughs and meringues. Requires students to submit three pieces from the American Culinary Federation approved individual pastry display category to be judged as a final practical exam.

**HOS 214 Hospitality Law and Security****3 Credits**

Provides an awareness of the rights and responsibilities that the law grants to or imposes upon a hotel keeper. Illustrates the possible consequences of failure to satisfy legal obligations.

**HOS 216 Hospitality Marketing and Sales****3 Credits**

Presents a practical understanding of the operating statement and precisely where, how and why the sales effort fits into total earnings and profit. Teaches how to measure and gauge accurately the precise worth of every type of business in advance.

**HOS 221 Catering****3 Credits**

Provides instruction in the fundamentals of catering, including the business of supplying food, goods and organized service for public and private functions. Includes staffing, equipment, transportation, contracting, special arrangements, beverage service and menu planning. Demonstrates techniques of setting up banquets and buffets. Requires students to plan, budget, cost, test recipes and formats, plan decor, service and entertainment for catered events.

**HOS 280 Co-op/Internship****1-6 Credits**

Requires students to work at a job site that is specifically related to their career objectives. Provides on-the-job experience while earning credit toward an associate degree.

**HOS 281-293 Special Topics in Hospitality Administration****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**HRM 107 Organization and Human Resources Development****3 Credits**

This course presents the student with opportunities to demonstrate problem solving abilities and techniques in common business and industry settings. Case histories and in-basket situations are used to train, demonstrate, and evaluate decisions common to management positions.

**HRM 203 Practicum****3 Credits**

Offers practical work experience in a commercial food service or hotel establishment in order to build specialized skills. Practicum will look at technical and management skills. An agreement must be completed by the student, the establishment and the practice coordinator prior to the start of the course. Students should have a site in mind prior to registering for this course (coordinator will assist).

**HRM 204 Food and Beverage Management****3 Credits**

Presents principles and practices of food and beverage production and service. Discusses management philosophies regarding sanitation, menu planning, cost and labor control, employee training, purchasing and merchandising of food and beverage.

**HRM 205 Front Office****3 Credits**

A systematic approach to front office procedures, detailing the flow of business through a hotel beginning with the reservation process and ending with billing and collection procedures within the context of the overall operation of a hotel. Examines front office management, the process of handling complaints, and concerns regarding hotel safety and security.

**HRM 206 Supervisory Housekeeping****3 Credits**

Introduces the fundamentals of housekeeping management. Emphasis is placed on employee training, record-keeping, health and safety cost control, and overall responsibilities.

**HRM 211 Financial Management****3 Credits**

Applies accounting principles to the hospitality industry.

Includes business principles pertaining to food and lodging, methods of recordkeeping for creditors, owners, and government and payroll control. Emphasizes tax laws specific to the industry, expense control and techniques of profitable management.

**IDS 102 Introduction to Print Reading****3 Credits**

Provides an introduction to reading and interpreting machine shop symbols, welding blueprints and working drawings used in trades and crafts. Focuses on dimension, shape, fabrication and assembly. Applies basic mathematics to the solution of print and performance problems.

**IDS 103 Motors and Motor Controls****3 Credits**

Provides a complete understanding of all types of electric motors, extending from the small shaded pole fan motors to the large three-phase motors. Includes motor theory magnetism and how it affects motor rotation. Provides in-depth study of motor starting components and protective devices for motor circuits. Includes heat dissipation from a motor, motor slippage, how motors are wired to obtain different speeds, and capacitors and how they affect a motor circuit.

**IDS 104 Fluid Power Basics****3 Credits**

Introduces the student to fluid power principles and components. Teaches basic circuit design, symbols and schematic diagrams to build a foundation for career work in fluid power technology.

**IDS 114 Introductory Welding****3 Credits**

Provides basic skills and fundamental knowledge in oxyacetylene and shielded metal welding for maintenance welders, auto service and body technicians, and individuals in the mining industry. Emphasizes industry welding practices and detailed study of techniques used in all weld positions. Covers brazing and flame cutting and electrode selection and uses. Emphasizes safe practices in welding, cutting and shielded metal arc.

**IDS 281-293 Special Topics in Industrial Technology****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**ILT 101 Industrial Laboratory Techniques****3 Credits**

Deals with basic skills needed in the industrial laboratory such as safety, identification, care and operation of basic laboratory equipment including pH meters, spectrophotometers, glassware and definition and preparation of reagents. Includes laboratory exercises in the use of selected equipment.

**ILT 288.01 Advanced Municipal Wastewater Treatment****3 Credits**

The basics of municipal wastewater treatment are briefly reviewed and then study continues on the special processes of advanced wastewater treatment. Emphasis is placed on ammonia and phosphorus removal, process control, filtration, disinfection, and coagulation. This course is excellent preparation for any student desiring to take Indiana's wastewater treatment certification test at the 2, 3, or 4 level. The state usually offers the test in May and November of each year.

**IMT 105 Heating and Air Conditioning Basics****3 Credits**

Presents fundamentals of heating and compression systems used in mechanical refrigeration and air conditioning. Includes combustion process, heat flow, temperature measurement, gas laws, heating and refrigeration cycles and components used in systems. Introduces basic mechanical service procedures used in industry.

**IMT 106 Millwright I****3 Credits**

Introduces the proper use of hand and power tools and measuring instruments in carpentry, blacksmithing, rigging and equipment, machinist and general shop. Includes structural steel and fabricating terms.

**IMT 107 Preventive Maintenance****3 Credits**

Focuses on detecting and correcting potential trouble spots and scheduling routine inspections with check lists. Studies five essential forms of preventive maintenance: equipment record, checklist, inspection schedule, inspection report and equipment cost record.

**IMT 108 Measurements and Calibration****3 Credits**

An introduction to the field on industrial motor controls. Develops knowledge of the symbols and diagrams used in various methods of control. Emphasizes line diagrams, ladder logic, and development of troubleshooting skills.

**IMT 122 Electrical Wiring Fundamentals****3 Credits**

Covers National Electrical Code and its relationship to residential and commercial wiring. Includes mechanical installation of hardware, metering equipment, lights, switches and design. Discusses tool use and materials selection.

**IMT 201 Fluid Power Systems****3 Credits**

Introduces the student to more complex fluid power circuits. Requires students to design, analyze and troubleshoot complex circuits using schematic diagrams. Studies detailed construction of typical industrial fluid power components. Teaches students to disassemble and evaluate fluid power components in the lab.

**IMT 203 Machine Maintenance/Installation****3 Credits**

Examines procedures for the removal, repair and installation of machine components. Analyzes methods of installation, lubrication practices and maintenance procedures for industrial machinery. Presents techniques for calibration and repair of electro-mechanical devices and practice in computations pertaining to industrial machinery.

**IMT 206 Programmable Controllers II****3 Credits**

Provides an in-depth study of programmable controllers. Emphasizes program language installation, maintenance and applications.

**IMT 207 Electrical Circuits****3 Credits**

Provides fundamentals of single- and three-phase alternating current, including parallel circuits, resistance, inductance, capacitance, switching, fusing, current requirements, transformer

applications and motors and motor controls. Covers the basics of mechanical and electrical installations, emphasizes tool use and material selection, and electrical troubleshooting diagnosis and repair.

**IMT 210 Pumps****3 Credits**

Covers the construction and operation of centrifugal, reciprocating and rotary pumps and compressors and their components. Includes procedures of troubleshooting, installation and maintenance.

**LEG 101 Introduction to Paralegal Studies****3 Credits**

Introduces the beginning student to the general concepts of the legal and paralegal fields. Topics include the American legal system, legal analysis and research, legal ethics and professional responsibility, and a survey of the major procedural and substantive areas of the law such as trial process, appellate courts, crimes, torts, contracts, and property law.

**LEG 102 Research and Writing****3 Credits**

The study and use of legal research tools such as digests, loose leaf services, reporters, statutory compilations and form books. Legal writing format and methodology are presented through practical application in drafting memoranda and correspondence. Shepardizing and proper case citation skills are included.

**LEG 103 Civil Procedures****3 Credits**

A study of Indiana Trial Rules and miscellaneous local rules. Filing requirements, computation of time and form drafting are emphasized.

**LEG 104 Torts****3 Credits**

A survey of intentional torts, negligence and strict liability. Emphasizes the elements of tort causes of action and the rules of damages.

**LEG 105 Business Associations****3 Credits**

The study of various business structures and the rights, duties, liabilities and formalities attendant to such structures. A survey of partnership, agency and corporation law is included.

**LEG 106 Claims Investigation****3 Credits**

The study of witness interview techniques, preservation of evidence, organizational skills and alternative methods of gathering facts. Client intake procedure and communication skills are emphasized.

**LEG 107 Contracts and Commercial Law****3 Credits**

A survey of contract law and the Uniform Commercial Code. Special statutes regarding state unfair practices, consumer deception and consumer rights are also presented.

**LEG 108 Property Law****3 Credits**

A survey of the law of real estate and personal property. Provides practical exposure to title searches, loan documentation, zoning requirements, financing statements, leases and deeds.

**LEG 109 Family Law**  
3 Credits

A survey of the law of marriage, dissolution of marriage, custody, child support and visitation, and adoption. Financial declaration forms, client intake skills, Child Support Guidelines and available social services are presented.

**LEG 110 Wills, Trusts, and Probate**  
3 Credits

Survey of the law of estates, wills, probate and guardianship, as well as intestate succession. Preparation of probate and administration forms, asset inventories and valuation, certain tax forms and accounting are included.

**LEG 111 Criminal Law and Procedures**  
3 Credits

Survey of Indiana criminal statutes and selected federal criminal laws. Investigative and administrative skills are emphasized.

**LEG 112 Bankruptcy Law**  
3 Credits

Bankruptcy Law includes a survey of the Federal Bankruptcy Act. Emphasizes skills needed to accumulate person financial information, compile initial schedules, collect and organize data for first meeting of creditors, complete proofs of claim and pursue creditor's rights.

**LEG 202 Litigation**  
3 Credits

Litigation includes the study of the Indiana Rules pertaining to actual trial. The discovery process and its tools are reviewed. Skills such as document organization and retrieval, witness statement and deposition summarizing, indexing and scheduling are presented. Trial notebook preparation is utilized for practical experience.

**LEG 203 Law Office Management and Technology**  
3 Credits

Designed to acquaint the student with various law office management applications used in the practice of law, including word processing, spreadsheets, database management, timekeeping and billing, docket control, litigation support and a computer-assisted legal research service. Hands-on training is included using Westlaw on-line, computer-assisted legal research service.

**LEG 204 Advanced Legal Writing**  
3 Credits

Develops and enhances legal writing abilities with a focus on the relationship of legal writing to the legal process and the basics of technical writing with emphasis on the theoretical and practical applications of legal communications.

**LEG 280 Co-op/Internship**  
1-6 Credits

Allows students to work at a job site that is specifically related to their career objectives. Provides on-the-job experience while earning credit toward an associate degree.

**LEG 281-293 Special Topics in Paralegal Studies**  
1-5 Credits

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

Note: All LEG courses have prerequisites. Please consult the program chair for class scheduling.

**LOG 101 Introduction to Materials Management**  
3 Credits

Studies factors influencing the flow of materials in a manufacturing enterprise. Covers basics of production planning and control, purchasing, forecasting, inventory and distribution issues. Concludes with an overview of just-in-time theory and practices.

**LOG 102 Manufacturing**  
3 Credits

Introductory manufacturing course. Focuses on basic principles, practices and functions of manufacturing management. Includes applications in the service industries, such as utilities, hospitals and government.

**LOG 103 Marketing**  
3 Credits

Introductory marketing course. Focus is on basic marketing strategy for targeting markets and developing a marketing mix of product, price, distribution and promotion.

**LOG 201 Transportation Systems**  
3 Credits

Provides in-depth knowledge of transportation systems and their inter-relationships with our economic, social, political and environmental systems.

**LOG 202 Physical Distribution**  
3 Credits

Focuses on the major concepts and rationale for utilizing warehouse inventories to lower costs of transportation, improve customer service, avoid stockouts, improve purchasing economics and seasonal variability.

**LOG 203 Sales Service**  
3 Credits

Designed to develop the art of selling. Sales knowledge and sales skills are applied to choices of products. Selling principles and the order processing cycle are emphasized.

**LOG 204 Case Studies**  
3 Credits

Uses the case study method to apply the knowledge, principles and skills acquired in student programs.

**LOG 208 Distribution Center Management**  
3 Credits

Studies warehousing from a depositor and operator viewpoint. Includes warehousing functions, location and specific site criteria, labor productivity, cost controls, equipment and packaging and customer service.

**LOG 209 Export/Import I**  
3 Credits

Studies the practical application of export and import techniques and concepts, government regulations, documentation, and financial and transportation considerations of the movement of commerce from and to the United States.

**LOG 210 Export/Import II**  
3 Credits

Familiarizes students with import practices, governmental regulations and carrier rate-making practices. Requires students to complete practical exercises, solve importing problems and work with the tariff schedule of the United States.

**LOG 211    Transportation Pricing****3 Credits**

Provides students with skills and techniques related to transportation pricing. Includes introduction, training and practice in freight management, freight classification, tariff interpretation and selection, zip code pricing and contract and negotiations.

**LOG 212    Freight Loss and Damage Claims****3 Credits**

Covers appropriate methods for claims management, damage claims prevention, legal remedies for disputed claims and transportation regulations.

**MEA 102    First Aid and CPR****2 Credits**

Provides students with information necessary to recognize emergency situations, know the proper course of action with different types of emergencies and apply appropriate first aid, including CPR.

**MEA 113    Pharmacology****3 Credits**

Discusses the most common medications in current use with emphasis on classifications, uses, routes of administration, dosages, interactions, incompatibilities and side effects. Emphasizes the 50 most commonly prescribed drugs listed in Pharmacy Times. Addresses special precautions, legal aspects, patient education and preparation and administration of medications.

**MEA 114    Medical Assisting Laboratory Techniques****3 Credits**

Prepares student to perform various basic laboratory procedures, including preparation of patients, collecting and preparing appropriate specimens and expected norms of laboratory test results. Includes current safety and quality control standards.

**MEA 115    Medical Insurance****2 Credits**

Provides an overview of medical insurance programs and skills developed in handling insurance forms, CPT and ICD-9-CM Coding and reports as applied to the medical office.

**MEA 120    Medical Assisting Clinical Externship****3 Credits**

Provides the opportunity to discuss and perform clinical procedures under supervision, with learning experiences obtained in selected physicians' offices, clinics or hospitals.

**MEA 121    Medical Assisting Administrative Externship****3 Credits**

Provides opportunities to observe, perform and discuss various administrative competencies under supervision, with learning experiences obtained in selected physicians' offices, clinics or hospitals.

**MEA 130    Medical Office Administration****2 Credits**

Provides an understanding of the administrative duties and responsibilities pertinent to medical offices. Develops communications skills specifically directed toward a medical office and the role of the professional medical assistant as a member of the health care team. Includes instruction in medical correspondence and records, case histories of patients, filing,

telephone procedures, appointment scheduling, receptionist duties and processing mail. Includes development of desirable personality traits, inter-personal relationships and attitudes within the medical office.

**MEA 131    Medical Financial Management****3 Credits**

Provides instruction in medical office financial administration, bookkeeping and materials management.

**MEA 132    Computer Concepts in Medical Office****2 Credits**

Familiarizes students with computer applications in the health care setting. Provides students with basics of operations and applications of computer usages within the health care provider office. Includes simulated data entry for patient records, procedures and diagnostic codes, insurance processing and electronic transmission of claims and scheduling day-sheet transactions in accordance with the AAMA DACUM guidelines.

**MEA 133    Medical Assisting Clinical Theory****3 Credits**

Presents theory related to clinical aspects of the medical office. Includes theory related to vital signs, asepsis, sterilization, medication administration, EKG's, X-ray, nutrition, physical therapy, sterile technique phlebotomy and other skills needed to assist the physician in the clinical setting.

**MEA 134    Medical Assisting - Clinical Skills Lab****2 Credits**

Allows students to become familiar with clinical duties and gain the skills needed to perform them. Includes vital signs, asepsis, sterilization, medications, EKGs, X-ray, nutrition, physical therapy, phlebotomy, sterile technique and other technical skills needed to assist the physician.

**MEA 135    Medical Typing and Transcription****3 Credits**

Develops skills and knowledge of medical dictation, machine transcription, and use of word processors and typewriters. Includes typing and transcription of medical reports, terminology and correspondence.

**MEA 151    Pharmacy Technician I****3 Credits**

Introduces basic skills and information needed to qualify as a Pharmacy Technician.

**MEA 152    Pharmacy Technician II****3 Credits**

Theory is applied through performance of competency levels of the technical pharmacy task including: properly preparing, documenting and processing prescriptions according to pharmacy policy and regulations; preparing intravenous and special solutions; properly preparing and maintaining records appropriate to the pharmacy, including quality control records, controlled substances (narcotic drug distribution), prescription data and records; applying basic principles of microbiology, using aseptic techniques and operating and maintaining the laminar hood. The student will employ proper communication skills (both written and verbal). Identification and adherence to check points will be emphasized. Current national and Indiana Law and administrative rules as they relate to the practice of the pharmacy technician will be presented. The importance of adherence to universal precautions will be discussed.

**MEA 153 Administrative Aspects of Pharmacy Technology**  
2 Credits  
Addresses the administrative aspect of pharmacy technology, including professional development, professional communication, time management, record keeping, computer applications, third party payment processing, operation of business machines and utilization of reference material.

**MEA 154 Pharmacy Externship**  
2 Credits  
Provides the opportunity to discuss and perform clinical procedures under supervision, with unpaid clinical experiences obtained in selected retail pharmacies and/or hospitals.

**MEA 203 Disease Conditions**  
3 Credits  
Presents the basic concepts of diseases, their courses and functional disturbances as they relate to body systems. Includes the precipitating risk factors and appropriate methods of patient education regarding various disease processes.

**MEA 209 Electrocardiograph - Basic Technique**  
1 Credit  
Presents the basic reasons for prescribing an electrocardiograph and the theory involved. The physiological principles involved are the basis for proper techniques that will be practiced by the students until they demonstrate competency with both the theory and required skills in doing a prescribed electrocardiograph.

**MEA 210 Introduction to EKG Interpretation**  
2 Credits  
Includes anatomy and physiology of the cardiovascular system and recognition of basic arrhythmias. Measurement of the EKG complex will be taught with the emphasis placed upon determining heart rates and rhythms.

**MEA 211 Advanced Electrocardiograph Interpretation**  
3 Credits  
Includes anatomy and physiology of the cardiovascular system, interpretation of rhythm strips and 12 lead EKG's and the cardiovascular drugs associated with arrhythmias.

**MEA 212 Phlebotomy**  
3 Credits  
Presents the principles and practices of laboratory specimen collection and processing. Also covers medical terminology, infection control, patient identification, anatomy and physiology, anticoagulants, blood collection, specimen processing and interpersonal skills.

**MEA 213 Advanced Insurance Coding**  
3 Credits  
Expands on basic insurance knowledge providing in-depth information on coding techniques necessary to bill insurance claims and provides experience in coding claim forms using the correct combination of codes to maximize reimbursement by linking of codes.

**MEA 214 Advanced First Aid and CPR (First Responder)**  
3 Credits  
Provides students with information necessary to recognize emergency situations, know the proper course of action with different types of emergencies and apply appropriate first aid. Handling of victims of hazardous materials accidents will be addressed. Covers CPR, including one and two rescuer. Teaches adult, infant, and child resuscitation.

**MEA 216 Nutrition**  
2 Credits  
Presents the importance of a balanced diet; methods of evaluating a diet; the basic four food groups; the functions, requirements and food sources of fats, proteins, carbohydrates, vitamins, and minerals, and the deficiency diseases. Introduces meal planning, nutrition for various age groups, religious and nationality food habits, and diet therapy. Explains special diets for diabetes, diseases of the GI tract, urinary tract, blood, cardiovascular system, obesity, cancer, allergy and pregnancy.

**MEA 217 Gerontology**  
3 Credits  
Presents a multidisciplinary study of the sociological, psychological and physiological aspects of aging. Included will be patient education and the impact that all facets of aging have on the total person.

**MEA 221 Seminar I**  
1 Credit  
Discusses topics of current interest in the medical assisting profession. Attention is given to special interest projects for students in the Medical Assistant program. Field trips, guest speakers, audio-visual activities and seminars may be utilized.

**MEA 222 Seminar II**  
2 Credits  
Discusses topics of current interest in the medical assisting profession. Attention is given to special interest projects for students in the Medical Assistant program. Field trips, guest speakers, audio-visual activities and seminars may be utilized.

**MEA 223 Seminar III**  
3 Credits  
Discusses topics of current interest in the medical assisting profession. Attention is given to special interest projects for students in the Medical Assistant program. Field trips, guest speakers, audio-visual activities and seminars may be utilized.

**MEA 224 Hospital Coding**  
3 Credits  
Designed to build on the comprehensive coding skills acquired through prerequisite course MEA 213. Introduces additional instruction in diagnostic related groups (DRGs) and medical record extraction. Provides discussion, observation and performance opportunities in related insurance coding competencies. Both classroom and clinical sites are utilized to provide realistic experiences under supervision. External sites include physicians' offices, clinics and hospitals.

**MEA 225 Insurance Coding Externship**  
3 Credits  
Provides opportunities to observe, perform and discuss various insurance related competencies under supervision, with learning experience obtained in selected physicians' offices, clinics or hospitals.

**MEA 234 Phlebotomy Externship**  
3 Credits  
Provides the opportunity to discuss and perform phlebotomy procedures under supervision with learning experiences obtained in selected laboratories, physicians' offices, clinics or hospitals.

**MEA 281-293 Special Topics in Medical Assistant**  
1-5 Credits

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**MEA 299 CMA Comprehensive Review**  
3 Credits

Reviews the entire medical assisting program in preparation for the CMA registry examination. Administration, clinical and general information is covered. Testing procedures are addressed. Emphasis will be placed on job readiness and placement. The course will give continuing education units for graduate CMA's in order to fulfill their certification renewal requirements.

**MKT 101 Principles of Marketing**  
3 Credits

Introduces the marketing role in society and how it affects the marketing strategy. Emphasizes the marketing mix, product planning and the effects of the demographic dimension on the consumer market.

**MKT 102 Principles of Selling**  
3 Credits

Provides an overview of the selling process. Includes the psychology of selling and develops skills through a series of selling situations.

**MKT 104 Advertising**  
3 Credits

Focuses on advertising as the key element in the promotion of goods and services in the marketplace. Includes advertising media and media selection, advertising copy strategy, advertising regulations and organization of advertising functions.

**MKT 201 Introduction to Market Research**  
3 Credits

Presents basic research methods entailing procedures, questionnaire design, data analysis and effectively communicating research results.

**MKT 202 Logistics/Purchasing Control**  
3 Credits

Introduces students to the framework of logistics, the logistics environment, customer services and materials management. Introduces material resources planning (MRP) and just-in-time (JIT) principles.

**MKT 204 Marketing Management**  
3 Credits

Focuses on the analysis, implementation and control of marketing strategy. Emphasizes the major decisions management faces in its effort to harmonize the objectives and resources of the organization with the needs and opportunities of the marketplace.

**MKT 205 Principles of Insurance**  
3 Credits

Introduces the risks faced by business firms, including property, liability and personal losses, and how they are handled. Presents insurance contracts and their uses. Includes an overview of life insurance, health and pension insurance, public policy, government regulations and social insurance.

**MKT 219 Field Study/Cooperative Education**  
3 Credits

Provides students the opportunity to work at a job site that is

specifically related to their career objectives. Provides field experience within the framework of actual work experience in marketing.

**MLT 101 Fundamentals of Laboratory Technician**  
3 Credits

Introduces elementary skills required in the medical laboratory. Covers laboratory math, quality control, pipetting skills, veinipuncture techniques and microscope skills.

**MLT 102 Routine Analysis Techniques**  
3 Credits

Studies principles, practices and clinical laboratory techniques associated with routine analysis of urine and other body fluids.

**MLT 196 Introduction to Patient Care and Phlebotomy**  
3 Credits

Introduces the health care delivery system. Provides instruction in specimen collection techniques, infection control and safety, and teaches applications of communications concepts and stress management.

**MLT 197 Clinical Phlebotomy Experience**  
3 Credits

Covers the practice and demonstration of clinical applications of phlebotomy in the clinical setting.

**MLT 198 Clinical Phlebotomy Discussion**  
1 Credit

Develops the professional socialization process necessary to function in a health care setting and reviews routine and special phlebotomy procedures in light of phlebotomist-patient interaction.

**MLT 201 Immunology Techniques**  
3 Credits

Provides students with an understanding of principles of the human immunologic system and experience in routine testing.

**MLT 202 Immunohematology Techniques**  
3 Credits

Instructs students in practice and procedures used in blood banking in the clinical laboratory.

**MLT 203 Instrumentation**  
2 Credits

Includes instrumentation theory and practice as applied to electronic equipment and automated systems in the medical laboratory.

**MLT 204 Microbiology Techniques**  
4 Credits

Instructs students in principles of bacteriology, including gram negative and positive bacilli and cocci, fastidious organisms and an overview of anaerobic and acid-fast bacteria. Includes instruction in the basic laboratory techniques in clinical bacteriology.

**MLT 205 Hematology Techniques I**  
3 Credits

Presents theory of blood formation and function and routine hematologic procedures with emphasis on differentiation of normal from commonly encountered abnormal blood cells. Includes basic theory of hemostasis and associated routine coagulation procedures. Presents clinicopathologic correlations.

**MLT 206 Hematology Techniques II****3 Credits**

Continues the study of principles and procedures in hematology and hemostasis. Introduces procedures beyond those routinely performed. Continues cell differentiation with emphasis on early and less commonly encountered abnormal cells and associated special stains. Includes clinicopathologic correlations.

**MLT 207 Chemistry Techniques I****3 Credits**

Presents principles, procedures and clinicopathologic correlations in routine chemical analysis of the blood and other body fluids. Provides laboratory experiences in basic methods selected to develop routine analytical abilities and to promote the ability to recognize sources of error.

**MLT 208 Chemistry Techniques II****3 Credits**

Continues the study of principles, procedures and clinicopathologic correlations in the chemical analysis of blood and other body fluids. Introduces procedures beyond those routinely performed in the clinical chemistry laboratory, including clinicopathologic correlations.

**MLT 209 Routine Analysis Applications****1 Credit**

Studies clinical applications of routine urine analysis in the hospital laboratory including physical, chemical and microscopic examination of urine.

**MLT 210 Hematology Application****1 Credit**

Studies and practices the principles and techniques of hematology in the hospital laboratory.

**MLT 211 Microbiology Applications****4 Credits**

Studies applications and clinical practices of microbiology found in the hospital laboratory.

**MLT 212 Immunology Applications****1 Credit**

Studies and practices the clinical application of serology in the hospital laboratory.

**MLT 213 Immunohematology Applications****3 Credits**

Studies and practices the principles and procedures used in blood banking in the hospital laboratory.

**MLT 214 Chemistry Application****4 Credits**

Studies and practices the analytical aspects of clinical chemistry in the hospital laboratory.

**MLT 215 Parasitology and Mycology****1 Credit**

Provides study in the isolation, identification, life cycles and disease processes of pathogenic fungi and parasites.

**MLT 216 Elementary Organic and Biochemistry****3 Credits**

Studies the chemistry of carbon-containing compounds and the biochemistry of lipids, carbohydrates, proteins, nucleic and enzymes. Includes related laboratory procedures.

**MLT 217 Advanced Chemistry Technology****1 Credit**

Presents principles and techniques of chemistry procedures beyond routine clinical chemistry testing, such as toxicology, endocrinology and inborn errors of metabolism.

**MLT 218 Clinical Pathology****3 Credits**

Examines various disease conditions, diagnosis, etiologies, clinical symptoms and related laboratory findings.

**MLT 280 Co-op/Internship****1-6 Credits**

Provides students with the opportunity to work at a job site that is specifically related to their career objectives. Provides on-the-job experience while earning credit toward an associate degree.

**MTT 102 Turning Processes I****3 Credits**

Instructs students in shop safety and industrial terminology and provides laboratory experience toward project completion on the conventional lathe.

**MTT 103 Milling Processes I****3 Credits**

Instructs students in shop safety and industrial terminology and provides laboratory experience towards project completion on the vertical and/or horizontal milling machine.

**MTT 104 Machinery Handbook****3 Credits**

Explores the intent and use of the machinery handbook. Applies principles and concepts in the machinery handbook to projects in the industry.

**MTT 106 Advanced Print Interpretation****3 Credits**

Applies mathematics in solving engineering and design-related problems in the areas of die design, fabrication, assembly, special machinery, die casting and molds. Emphasizes GDT tolerancing.

**MTT 204 Abrasive Processes I****3 Credits**

Provides shop safety, industrial terminology and laboratory experiences on abrasive processing machines. Includes superabrasives technology processes.

**MTT 208 CNC Programming I****3 Credits**

Introduces two and three axis CNC machining. Develops the theory of programming in the classroom with application of the program accomplished on industry type machines. Studies terminology of coordinates, cutter paths, angle cutting, and linear and circular interpolation.

**MTT 209 CNC Programming II****3 Credits**

Expands on MTT 208, providing further study in computer-aided numerical control programming. Focuses on canned cycles, loops, macros, thread cycles, drilling and pocket milling cycles.

**MTT 210 Interactive CNC****3 Credits**

Continues CNC Programming II. Introduces advanced applications of computer-assisted part programming and simulation, language codes set-up and operation, troubleshooting and problem solving in a CNC turning center and CNC matching center. Includes related mathematical skills.

**MTT 220 CAD/CAM I****3 Credits**

Covers the development of various machine routines. Introduces computer-assisted machining as it relates to automated milling and machining centers. Emphasizes proper programming techniques, control familiarity, file data and machining functions.

**NUR 107 Transition to Associate Degree Nursing Practicum****3 Credits**

Provides campus and clinical laboratory experience to function as associate degree nursing students in providing care to clients from the child-bearing process through adolescence. Uses the nursing process to provide quality nursing care.

**NUR 150 Nursing and Universal Needs****4 Credits**

Identifies the components of the ASN program philosophy. Introduces the role of the Associate Degree Nurse and the facts, concepts, and principles underlying the nursing process. Assists the student in identification of universal needs and appropriate nursing responses to meet those needs.

**NUR 151 Nursing and Universal Needs Practicum****4 Credits**

Provides an opportunity in the practice laboratory and clinical setting to utilize the role of the Associate Degree Nurse in employing the nursing process. Simulated and actual patient care will provide an opportunity to develop assessment skills and to initiate a beginning level of analyzing, planning, implementing, and evaluating therapeutic measures in meeting universal needs.

**NUR 152 Nursing Related to Health Deviation I****5 Credits**

Examines the role of the Associate Degree Nurse in assisting clients experiencing health deviations related to nutrition/elimination, rest/activity, safety, and regulation. The nursing process is utilized for assessment, analysis, planning, implementation, and evaluation of therapeutic measures that promote, maintain, and/or restore health or support death with dignity in the adult client.

**NUR 153 Nursing Related to Health Deviation I Pract.****5 Credits**

Provides clinical experiences that allows the student to implement the role of the Associate Degree Nurse in providing care to clients experiencing health deviations related to nutrition/elimination, rest/activity, safety and regulation. The nursing process guides the application of scientific facts, concepts and principles in the delivery of nursing care. Decision making and appropriate therapeutic communication are emphasized.

**NUR 154 Pharmacotherapeutics****2 Credits**

Introduces the student to the fundamental principles of drug action, the classification of drugs and the appropriate nursing actions to achieve the desired outcomes of therapy. The nursing

process as a framework for learning is integrated throughout the course. Major drugs are classified either by clinical use of body system affected.

**NUR 249 Transition to ASN Nursing****3 Credits**

Examines the role of the Associate Degree Nurse. Identifies components of the ASN program philosophy. Reviews the facts, concepts, and principles underlying the nursing process in meeting universal needs. Campus laboratory experience is provided to review basic nursing skills. Assists the student to identify appropriate nursing responses to meet universal health deviation needs.

**EFFECTIVE 1996/1997 SCHOLASTIC YEAR:****NUR 250 Nursing Related to Health Deviation II****5 Credits**

Examines the role of the Associate Degree Nurse in assisting clients experiencing health deviations related to safety, oxygenation, regulation and social interaction/solitude. The nursing process with emphasis on planning, implementation and evaluation if utilized to promote, maintain, and/or restore health or support death with dignity in the adult client.

**NUR 251 Nursing Related to Health Deviation II Pract.****5 Credits**

Provides clinical experiences that allows the student to implement the role of the Associate Degree Nurse in providing care to clients experiencing health deviations related to safety, oxygenation, regulation and social interaction/solitude. The nursing process guides the application of scientific facts, concepts, and principles in the delivery of nursing care. Decision making and appropriate therapeutic communication are emphasized.

**NUR 252 Nursing Related to Developmental Needs****4 Credits**

Identifies the role of the Associate Degree Nurse in assisting clients to meet their developmental needs which includes maintenance of conditions to support life processes and maturation. Utilizes the nursing process with emphasis on planning, implementation and evaluation to evaluate therapeutic measures that promote, maintain or restore health and support death with dignity.

**NUR 253 Nursing Related to Developmental Needs Pract.****4 Credits**

Provides clinical experiences that allows the student to implement the role of the Associate Degree Nurse in providing care to clients to meet their developmental needs which includes the maintenance of conditions to support life processes and maturation. The nursing process guides the application of the scientific facts, concepts and principles in the delivery of nursing care. Decision making and appropriate therapeutic communication are emphasized.

**NUR 254 Professional Nursing Issues****2 Credits**

Examines issues and nursing's responsibility to meet changing needs of persons in their environment. Historical aspects, current developments, future trends, improvement of nursing practice, legal/ethical considerations, and personal/professional growth are integrated into the examination of the role of the Associate Degree Nurse.

**OTA 101 Foundations of Occupational Therapy****3 Credits**

Establishes a philosophical base for subsequent course work by introducing and examining concepts basic to the study of Occupational Therapy Assistant.

**OTA 102 Kinesiology****2 Credits**

Analyzes human motion with emphasis on the range of motion and muscle strength related to occupational performance.

**OTA 103 Medical Conditions in Occupational Therapy****3 Credit**

Provides an interdisciplinary approach to the study of physical conditions commonly seen by Occupational Therapists. Includes a survey of the medical or surgical management of these conditions.

**OTA 201 Field Work I-A****1 Credit**

Provides clinical observation and practice of the occupational skills and processes presented in previous and current courses in the curriculum. Attendance at weekly seminar is required.

**OTA 202 Therapeutic Activities****3 Credits**

Provides supervised learning experiences in fiber crafts, ceramics, woodworking, art, design and minor crafts as therapeutic modalities.

**OTA 203 Therapeutic Group Activities****3 Credits**

Provides experimental learning in the analysis and therapeutic use of a variety of group activities used in Occupational Therapy.

**OTA 204 Psychiatric Conditions in Occupational Therapy****3 Credits**

Reviews psychiatric disorders including medical management and treatment, clinical team approach, legal issues, nomenclature, clinical descriptions, and etiology.

**OTA 205 COTA in Physical Health****3 Credits**

Presents assistant -level techniques for management of clinical physical dysfunction cases referred to occupational therapy. Includes initial screening, evaluation, treatment planning and implementation of program for patients /clients.

**OTA 206 Assistive Technology and Adaptive Equipment****2 Credits**

Provides supervised learning experience in the application of technology in Occupational Therapy including orthotics, prosthetics, and assistive/adaptive equipment.

**OTA 207 Daily Living Skills****3 Credit**

Provides supervised learning experiences in maximizing occupational performance that includes independent living skills, work, and plan/leisure skills.

**OTA 208 COTA and Interactive Model****3 Credits**

Presents the COTA's role in directing activities in a non-medical setting. Includes appropriate techniques for a variety of populations in settings such as schools, nursing homes, and sheltered workshops.

**OTA 209 Field Work I-B****1 Credit**

Provides for clinical observation and practice of the occupational skills and processes presented in previous and current courses in the curriculum.

**OTA 210 COTA in Mental Health****3 Credits**

Presents the psychiatric Occupational Therapy process and the role of the Occupational Therapy Assistant in appropriate methods and techniques.

**OTA 211 Clinical Transition and Management****4 Credits**

Presents basic theory, techniques and skills necessary for the transition into the clinical setting and for the management of an activities program. Management information as it relates to the role of the COTA is provided along with examining the qualities necessary for success in the clinical setting.

**OTA 212 Field Work II-A****2 Credits**

Provides supervised clinical experience. All field work must be completed within 18 months of completion of academics.

**OTA 213 Fieldwork Level II-B****2 Credits**

Provides supervised clinical experience. All field work must be completed within 18 months of completion of academics.

**PNU 101 Foundations of Nursing****4 Credits**

Presents the goals and the role of the licensed practical nurse on the health care team. Covers concept of the nursing process as practiced within the wellness/illness continuum. Includes basic nursing care, and data collection and recording.

**PNU 102 Therapeutic Measures****3 Credits**

Focuses on preventive, therapeutic and rehabilitative nursing interventions requiring advanced skills and knowledge. Integrates the nursing process and the role of the practical nurse.

**PNU 103 Holistic Approach to Health****2 Credits**

Introduces the holistic approach to practical nursing. Includes holistic aspects of care, the wellness/illness continuum and therapeutic relationships.

**PNU 104 Nutrition****2 Credits**

Covers basic principles of nutrition and diet therapy in wellness and illness for various age groups. Considers socio-economic, ethnic and religious factors related to diet. Emphasizes the role of the practical nurse in assisting patients in meeting nutrition needs.

**PNU 105 Introduction to Clinical Nursing****3 Credits**

Provides students with opportunities to implement basic nursing skills in the clinical setting. Emphasizes the hygienic and comfort needs of the adult patient and focuses on developing basic assessment skills utilizing the nursing process. Stresses concise, accurate documentation of assessment and care.

**PNU 107    Cardiopulmonary Nursing****3 Credits**

Utilizes the nursing process in understanding the pathophysiology and nursing care of patients with cardiovascular/ventilation needs. Emphasizes developing the nurse as a communicator and care giver with a holistic approach.

**PNU 108    Endocrine/Genitourinary Nursing****3 Credits**

Utilizes the nursing process in understanding the pathophysiology of hormonal imbalances and urinary elimination needs. Emphasizes developing the nurse as a communicator and care giver with a holistic approach, identifying community supports for patients and developing patient awareness of healthful lifestyles.

**PNU 109    Gastrointestinal/Sensorimotor Nursing****3 Credits**

Utilizes the nursing process in understanding the pathophysiology of digestion, elimination, mobility and sensorimotor needs. Develops the nurse as a communicator and care giver with a holistic approach. Covers patient psychosocial needs and opportunities for support through community agencies.

**PNU 110    Introduction to Pharmacology for Practical Nursing****2 Credits**

Introduces the concept of meeting biopsychosocial needs through drug administration within the preventive, therapeutic and rehabilitative environment. Defines practical nurse responsibilities in medication administration. Assesses patient wellness/illness status.

**PNU 111    Pharmacology for Practical Nurses****2 Credits**

Surveys common pharmacologic agents. Develops drug therapy as one aspect of preventive, therapeutic and rehabilitative care of patients.

**PNU 112    Medical/Surgical Clinical Nursing I****3 Credits**

Correlates medical surgical content and nursing practice. Includes decision making within the practical nurse role. Emphasizes the holistic aspects of individuals along the wellness/illness continuum.

**PNU 113    Medical Surgical Clinical Nursing II****2 Credits**

Correlated theory to the holistic care of the adult. Implements the nursing process in preventative, rehabilitative and therapeutic care. Identifies the role of the Practical Nurse providing care within the environment at an advanced level.

**PNU 114    Nursing Issues & Trends****1 Credit**

Covers organizational patterns and the role of the licensed practical nurse in the health care delivery system. Emphasizes continuing education as a means for maintaining competencies. Includes ethical, legal and historical aspects to develop awareness of privileges, obligations and responsibilities of the practical nurse.

**PNU 115    Gerontology****3 Credits**

Focuses on the normal aging process along the wellness/illness continuum in later life. Surveys trends in preventive, rehabilitative and therapeutic care.

**PNU 116    Geriatric Clinical Nursing****3 Credits**

Correlates gerontologic content with holistic care of the older adult. Implements nursing process within the role of the practical nurse to prevent illness or to maintain, promote and restore health.

**PNU 117    Maternal/Child Nursing****3 Credits**

Examines conditions and selected interventions based on the nursing process in providing preventive, rehabilitative and therapeutic care for the mother and child. Identifies the role of the licensed practical nurse in providing holistic care within a dynamic environment

**PNU 118    Maternal/Child Clinical Nursing****3 Credits**

Correlates maternal/child content with holistic care of the mother and child. Emphasizes the normal maternity cycle and normal growth and development of the child within the wellness/illness continuum.

**PST 120    First Responder****4 Credits**

Provides students with information necessary to recognize emergency situations, know the proper course of action with different types of emergencies and apply appropriate first aid. Addresses handling of victims of hazardous materials accidents. Covers CPR, including one and two rescuer, and adult, infant and child resuscitation.

**PST 121    Industrial Safety and Loss Prevention****3 Credits**

Introduces occupational safety and health standards and codes with emphasis on applications of codes to typical work situations and MSDS requirements. Includes emergency first aid, safety protection, eye protection and chemicals handling. Covers employer and employee rights as well as violations, citations, penalties, variances, appeals and record keeping.

**PST 220    Incident Management Systems****3 Credits**

Emphasizes the command and control of major department operations at an advanced level, linking operations and safety. Areas of study include incident management systems, pre-incident, size-up, command systems, sectoring functions, staging, safety officer, command post, communications, news media, and computer-aided resources. Utilizes simulated incidents requiring the applications of appropriate solutions.

**PST 221    Design and Planning for Prevention and Protection****3 Credits**

Focuses on the needs and uses of the computer in public safety. Includes computer-aided dispatch, advanced levels of cameo, I-Chiefs, computer-aided design of equipment, generation of incident reports, application of computers for the budgetary process, computer-aided resource and materials, maintenance, test records of vehicles and the GIS program.

**PST 281-293 Special Topics in Public Safety****1-5 Credits**

Provides students with the opportunity to experience seminars, workshops and other instructional activities on topics of interest that reinforce the concepts presented in their program area. Contact chief academic officer for more information.

**PSY 205 Abnormal Psychology****3 Credits**

Introduces abnormal psychology to acquire skill in understanding personality, attitude and emotional disorders which require intervention.

**QSC 101 Quality Control Concepts and Techniques I****3 Credits**

Quality is the single most important force leading to organizational success and company growth in national and international markets in both the service and manufacturing industries. A company with a strong total quality control program has the opportunity to increase market penetration, improve productivity, lower the cost of quality, and strengthen leadership. This course demonstrates the development and implementation of a total quality control program.

**QSC 102 Statistical Process Control****3 Credits**

Studies the fundamental tools of statistical process control which are used in industry to reduce costs and increase productivity at a predictable quality level. Emphasizes principles and techniques of statistical process control to ensure that prevention instead of detection of problems is practiced. Includes basic statistical and probability theory, sampling techniques, process control charts, the nature of variation, histograms and attribute and variable charts.

**QSC 201 Advanced Statistical Process Control****3 Credits**

Builds on the basic principles of QSC 102 with advanced techniques by industry to ensure economic production of goods based on defect prevention rather than defect detection. Covers the various decisions to modify, change or adjust processes based on statistical evidence. Stresses interpretation of statistical data and distinguishing between common and special causes of problems. Emphasizes appropriate use of control charts, trend analysis, assessing process and machine capability, evaluating the measurement process, using computers, and automated data collection systems and implementation techniques.

**QSC 202 Quality Control Concepts and Techniques II****3 Credits**

Continues QSC 101. Acquaints students with quality control systems. Emphasizes the systems approach to quality, establishing the quality system and applying total quality control in the company.

**QSC 203 Metrology****3 Credits**

Covers techniques of linear and angular measurement and applications for industrial processes and quality control.

**QSC 204 Total Quality Management****3 Credits**

Teaches the philosophy of total quality management. Focuses on improving processes and reducing variation in systems. Covers managements role in improving aspects of manufacturing and service organizations to achieve quality improvement.

**RAD 101 Orientation and Nursing in Radiologic Technology**  
**4 Credits**

Covers seven units. Introduces radiology and prepares students for entry into a clinical setting.

**RAD 102 Principles of Radiographic Exposure****2 Credits**

Presents individual and group characteristics needed to produce the ideal radiograph. Includes knowledge of interchangeability of mAs, kVp, film/screen combinations, distance and grids. Covers factors and considerations needed for pediatric techniques, calibration, heat unit calculation and technique chart construction.

**RAD 103 Radiographic Positioning I****3 Credits**

Correlates positioning, terminology, techniques and film critique with the examinations of chest, abdomen, upper extremity, upper/lower GI tracts and urinary tract.

**RAD 104 X-Ray Clinical Education I****4 Credits**

Follows category 2 of the competency lab model, which tests proficiency of skills from categories 1 and 2. Includes supervised clinical experience.

**RAD 105 Radiographic Positioning II****3 Credits**

Correlates all previous material related to anatomy and positioning, covers the areas of lower extremities, spine and thorax, and advances knowledge in ethics and quality assurance.

**RAD 106 X-Ray Clinical Education II****4 Credits**

Includes supervised clinical experience, utilizes category 2 of the competency model, tests proficiency of skills from categories 1 and 2.

**RAD 107 Radiation Physics****3 Credits**

Introduces physics as utilized in the production of X-rays. Includes laws of physics pertaining to atomic structure, chemical properties and reactions and electrical circuitry. Covers equipment and methods of generation and measurement of electricity.

**RAD 109 Imaging Techniques****2 Credits**

Covers theories, principles and demonstrations of current imaging modalities.

**RAD 201 Radiographic Positioning III****2 Credits**

This course correlates positioning terminology and techniques, film critique, with exams of Category 2 of the competency model, testing skills from Category I and II.

**RAD 202 X-Ray Clinical Education III****4 Credits**

Introduces Category 3 of the Competency Model, proficiency testing over Categories 1 and 2 and testing over Category 3.

**RAD 203 X-Ray Clinical Education IV****4 Credits**

Introduces Category 4 of the Competency Model in lab proficiency testing of skills from Categories 1, 2, 3 and proficiency in Category 4.

**RAD 204 X-Ray Clinical Education V****4 Credits**

Includes final competency testing for students who have not completed clinicals 1-4. Continues maintenance over all categories. Includes experienced clinical.

**RAD 205 Pathology for Radiologic Technology****2 Credits**

Examines basic concepts concerning disease, its causes and the resulting changes as viewed radiographically. Emphasizes needed technical changes to produce optimal radiographs from correlations to patient symptoms.

**RAD 206 Radiobiology and Radiation Protection****3 Credits**

Covers theories and principles of the effects of ionizing radiation upon living tissues. Includes dosages, measurements, DNA structure and function and cellular radio sensitivity.

**RAD 207 Radiographic Positioning IV****3 Credits**

Covers all positions involving radiographic examinations.

**RAD 208 Principles of Radiographic Exposure II and Quality Assurance****2 Credits**

Continues Principles of Radiographic Exposure I. Explains photo timing and its relationship to manual techniques. Associates kVp and mAs with the quality and quantity of radiation. Covers standard darkroom procedure, automatic processing and quality assurance.

**RAD 209 Radiographic Positioning V****3 Credits**

Covers all positions involving radiographic examinations.

**RAD 288 Pharmacology and Routes of Administration for Radiologic Technologists****3 Credits**

Surveys common pharmacologic agents, including emergency drugs, contrast media, measurements, dosages, actions, contraindications, allergic reactions and routes of administration.

**RAD 299 General Exam Review****3 Credits**

Reviews content of program, emphasizing anatomy, physics, exposure principles, positioning and radiation safety. Simulated Registry exams prepare the student for the American Registry of Radiologic Technologist Examination.

**RES 121 Introduction to Respiratory Care****6 Credits**

Presents an introduction into Respiratory Care including a brief history of the profession; equipment cleaning and sterilization techniques; patient assessment techniques; isolation techniques. Also includes medical records documentation, gas analyzers, introduction and application of therapeutic modalities including oxygen therapy, aerosol and humidity therapy, airway maintenance and hyperinflation therapy, and an overview of ethical practice and safety.

**RES 122 Therapeutic Modalities****3 Credits**

Presents medicinal aerosol therapy and respiratory pharmacology; hyperinflation therapies; introduction to pulmonary rehabilitation and home care. Introduces basic bedside pulmonary function testing and development of respiratory care plans. Selected aspects of ethical and legal respiratory practice are presented.

**RES 123 Cardiopulmonary Physiology****3 Credits**

Presents the cardiopulmonary system including ventilation, perfusion, and gas exchange; introduces interpretation and application of arterial blood gases, acid-base regulation, and physiologic monitoring.

**RES 124 Clinical Practicum I****3 Credits**

Introduces the student to the hospital environment. The student will be exposed to various hospitals and respiratory care departments, patient charts, patient identification and communication within the hospital. Provides supervised experience in oxygen therapy, hyperinflation therapy, humidity/aerosol therapy and charting.

**RES 125 Critical Care I****3 Credits**

Introduction to the respiratory care of the critically ill patient. Presents arterial blood gas collection; analysis and interpretation; and basic medical laboratory data. Introduces concepts and techniques of critical respiratory care of adults and pediatrics; to include establishment and maintenance of artificial airways. Application of adult and pediatric mechanical ventilators and related cardiopulmonary monitoring equipment.

**RES 126 Clinical Medicine I****3 Credits**

Introduces etiology, symptomatology, diagnosis, therapeutics, and prognosis of selected pulmonary diseases.

**RES 127 Clinical Practicum II****3 Credits**

Provides supervised experience in selected therapeutic modalities. An introduction to chest physiotherapy, medicinal aerosol therapy, intermittent positive pressure breathing, and ultrasonic therapy will be included. Continuing certification in CPR is required.

**RES 128 Clinical Practicum III****9 Credits**

Provides additional supervised experience in selected therapeutic modalities. Also includes advanced patient assessment, arterial blood gas analysis, and airway care. Clinical experience in adult critical care with mechanical ventilation. An introduction to basic cardiopulmonary testing is included. Continued certification in CPR is required.

**RES 221 Cardiopulmonary Diagnostics****3 Credits**

Presents in-depth approaches to the respiratory care management of critically ill neonatal, pediatric, and adult patients. Special emphasis is placed on techniques of patient evaluation, cardiopulmonary monitoring, transportation, and management. Also included are advanced techniques of patient assessment through pulmonary function testing and other selected assessment techniques.

**RES 222 Critical Care II****3 Credits**

Presents advanced techniques of mechanical ventilation of neonatal, pediatric and adult patients; includes fetal development and assessment; neonatal and pediatric assessment, equipment, procedures and therapeutic techniques; introduces related aspects of the NICU environment.

**RES 224 Clinical Medicine II****3 Credits**

Presents etiology, symptomatology, diagnosis, therapeutics and prognosis of disease conditions related to respiratory care; focuses on the interrelation of all physiologic systems. Emphasis on treatment protocols; includes preparation for clinical simulation component of national credentialing examination.

**RES 225 Emergency Management****1 Credit**

Application of advanced cardiopulmonary life support efforts in an emergency setting.

**RES 226 Continuing Care****2 Credits**

Presents a brief history of home care patients in relation to respiratory care modalities. Provides an overview of respiratory care roles in the alternative care sites.

**RES 227 Clinical Practicum IV****6 Credits**

Provides additional supervised experience in selected therapeutic modalities. Also includes advanced cardiopulmonary diagnostic techniques, application of invasive and non-invasive monitoring of the cardiopulmonary system, and experience in respiratory care departmental management and quality assurance roles. Also includes advanced clinical experience in adult, pediatric and neonatal critical care. Exposure to home care settings, alternative care sites and pulmonary rehabilitation programs is expected. Continuing certification in CPR is required.

**RES 228 Information Systems for Health Care****1 Credit**

Presents an introduction to computer technology and its uses in the health care setting.

**SPC 103 Employee Participation Techniques & Quality Improvements****3 Credits**

Provides an overview of the development of an employee involvement program such as circle, team, group and other concepts. Includes problem-solving techniques of brainstorming, cause and effect diagrams, data gathering, check sheets, Pareto analysis, central location, frequency distribution and histograms. Covers the role of management and employees in the process and their relationship to participative management.

**SPC 104 Introduction to Non-Destructive Testing****2 Credits**

Acquaints students with the principles and various types of non-destructive examination methods, their advantages, limitations and applications.

**SPC 105 Non-Destructive Testing Applications I****2 Credits**

Presents an overview of the relationship of non-destructive testing to the total quality function. Includes advantages and limitations of various test methods.

**SPC 106 Non-Destructive Testing Applications II****2 Credits**

Covers theoretical and practical aspects of non-destructive testing in radiography, eddy current testing, acoustic emission and leak testing.

**SPC 108 Quality Control Engineering Principles and Technologies****3 Credits**

Presents principles and techniques of modern quality control engineering with attention to management, engineering, economic and production factors. Emphasizes the assurance of quality at the hardware, processing and system levels.

**SPC 109 Engineering Materials****2 Credits**

Includes the basic principles of metallurgy and the properties of materials in the section of parts and manufacturing processes. Explores the ways in which the strength and hardness of metals can be altered by heating and cooling. Examines ceramics, composites, polymers and other exotic metals.

**SPC 110 Quality Control Engineering Theory and Application****3 Credits**

Presents current theory and applications of quality engineering for assurance and verification of product quality at the hardware, processing and system levels. Emphasizes statistical analysis, laboratory experiments, and tests and case problem-solving applications.

**SPC 111 Reliability Objectives****3 Credits**

Introduces the development and principles of reliability engineering. Establishes the mathematical and physical bases of reliability and applies the basic elements of reliability data analysis. Surveys concepts basic to modern reliability requirements with emphasis on practical applications in manufacturing processes and production operations.

**SPC 112 Reliability Techniques****3 Credits**

Studies reliability techniques and applications designed to obtain or improve reliability analysis.

**SPC 201 Analysis of Metallurgical Failure****3 Credits**

Study of the factors responsible for the failure of components or structures, which may be motivated by either sound engineering practice or by legal considerations. Covers the proper application of failure analysis techniques to provide valuable feedback to design problems and materials limitations.

**SPC 202 Process Control Gauging and Measurements****3 Credits**

Deals with the science of measurement for obtaining accurate and reliable data using computerized statistical process control and mechanical metrology. Includes selection of various instruments for specific applications.

**SPC 203 Codes, Specifications and Procedures Interpretations****3 Credits**

Explores the different types of codes, specifications and procedures used in modern industry and provides opportunity for use and interpretation. Blueprint reading is included.

**SPC 205    Nondestructive Testing****3 Credits**

Presents an overview of the relationship of nondestructive testing to the total quality function. Attention is given to the advantages and limitations of various test methods.

**SPC 206    Mechanical Metrology****3 Credits**

Provides instruction and laboratory experiments in the use of mechanical testing and measurement equipment for quality control.

**SPC 207    Electrical Metrology****3 Credits**

Offers instruction and laboratory experiment in the use of electrical testing and measurement equipment for quality control.

**SUP 104    Techniques of Supervision II****3 Credits**

Develops skills for effective supervision of employees by utilizing analysis of cases, group discussion, in-basket exercises and role-playing.

**SUP 203    Reliability Objectives****3 Credits**

Introduces development and principles of reliability engineering. Establishes mathematical and physical bases of reliability and applies basic elements of reliability data analysis. Surveys concepts basic to modern reliability requirements with emphasis on practical applications in manufacturing processes and production operations.

**SUP 204    Mechanical Metrology****3 Credits**

Provides instruction and laboratory experiments in the use of mechanical equipment for quality control

**SUP 224    Operations Management****3 Credits**

Studies the efficient production of goods and services that will satisfy the wants and needs of identified customer groups. Focuses on the acquisition of the factors of production, efficient use of those factors and distribution of the output of the production process. Includes discussion of the need for quality and its measurement.

**SUR 101    Surgical Techniques****3 Credits**

Introduces principles of sterile techniques and the operative care of the surgical patient. Includes the roles of scrubbing and circulating duties.

**SUR 102    Surgical Procedures I****3 Credits**

Provides orientation to the role of a surgical technologist. Introduces the surgical facility, aseptic technique and basic surgical procedures with review of total patient care, including pre-operative care, diagnostic test and immediate post-operative care.

**SUR 103    Fundamentals of Surgical Technology****6 Credits**

Demonstrates and supervises practice of general surgical procedures. Correlates theory to clinical by requiring students to actively participate as members of the surgical team. Includes laboratory and clinical experiences.

**SUR 104    Surgical Procedures II****6 Credits**

Studies advanced surgical procedures in relation to the total physiological aspects of surgical intervention. Includes a knowledge of the involved anatomy, existing pathology, surgical hazards encountered, the surgical procedure and a review of total patient care.

**SUR 105    Clinical Applications I****9 Credits**

Correlates basic principles and theories of advanced surgical procedures to clinical performance in affiliating hospitals. Includes knowledge, skills and attitudes necessary for successful implementation of safe patient care in an operating room.

**SUR 106    Surgical Procedures III****3 Credits**

Studies specialized surgical procedures. Includes a knowledge of the involved anatomy, existing pathology, surgical hazards encountered, the surgical procedure and a review of total patient care.

**SUR 107    Clinical Applications II****8 Credits**

Correlates principles and theories of specialized surgical procedures to the clinical performance in affiliating hospitals. Includes the knowledge, skills and attitudes necessary for successful implementation of safe patient care in an operating room.

**TEC 101    Manufacturing Processes****3 Credits**

Provides a basic survey of manufacturing processes, tools and equipment used by modern industry to convert bars, forgings, castings, plates and sheet materials into finished products. Includes basic mechanics of materials removal and forming, metrology, quality control and safety of operations. Introduces non-traditional manufacturing techniques.

**TEC 106    Hazardous Materials and Control****3 Credits**

Introduces hazardous materials, managing hazardous material incidents, explosive and gas emergencies, shipping containers, cylinder safety devices, responding to flammable and combustible liquids, oxidizers, poisons and corrosive and radioactive emergencies. Emphasizes chemical identification, marking, storage, shipping and handling hazardous substances. Uses basic monitoring instruments for hazardous areas to protect workers and first responders. Covers protective clothing and equipment. Emphasizes safety.

**TEC 113    Basic Electricity****3 Credits**

Studies electrical laws and principles pertaining to DC and AC circuits. Includes current, voltage, resistance, power, inductance, capacitance and transformers. Stresses the use of standard electrical tests, electrical equipment and troubleshooting procedures. Emphasizes safety procedures and practices. Pre-requisite or co-requisite BSA 050.

**VIS 101    Fundamentals of Design****3 Credits**

This course investigates design theory and color dynamics as applied to organizing the field. Products provide experiences in analyzing design theory.

### **VIS 115 Computer Graphics**

**3 Credits**

Introduces students to the computers used in graphic design. Focus on basic computer terminology and use, mastering fundamental skills and developing efficient working styles. Develops skills by creating publications with page layout software.

### **WLD 108 Shielded Metal Arc Welding I**

**3 Credits**

The student is provided with a thorough technical understanding of arc welding fundamentals, welding safety, electric power sources, electrode classifications and selection. The course also includes training to develop the manual skill necessary to make high quality shielded metal-arc welds in three positions on mild steel.

### **WLD 109 Oxy-Acetylene Gas Welding and Cutting**

**3 Credits**

In this course the student is provided with a thorough technical understanding of oxy-acetylene welding, flame cutting, brazing fundamental, and welding safety. Training to develop the manual skills necessary to produce high quality welding and cutting techniques is included.

### **WLD 110 Welding Fabrication**

**3 Credits**

Basic fabrication covers interpreting blueprints and welding symbols, principles of layout and measurement used in fabrication of metal products including tolerances, fits, and allowances.

### **WLD 120 Metallurgy Fundamentals**

**3 Credits**

Introduced are properties and uses of ferrous and nonferrous metals and alloys; the production of iron and steel; composition and properties of plain carbon steel and alloying elements; selection of tool and case hardening steels; and destructive and nondestructive testing. Also included are the fundamentals of heat treatment and reactions that occur in metals subjected to various heat treatment methods and techniques.

### **WLD 201 Special Welding Processes**

**3 Credits**

Welding practice with various welding processes and techniques using advanced welding methods, machines and equipment. Presents advanced arc welding with emphasis on use and orientation of submerged arc welding equipment.

### **WLD 203 Pipe Welding I**

**3 Credits**

This course extends the student's welding skills as necessary to make high quality welds on open root mild steel pipe in 5G, 2G and 6G positions using the SMAW process.

### **WLD 206 Shielded Metal Arc Welding II**

**3 Credits**

Training to develop the manual skills necessary to produce quality multipass fillet and groove welds with the backing in all positions is provided. This course is designed to use the E6010 and 7018 electrodes on thick carbon steel plate similar to many structural applications.

### **WLD 207 Gas Metal Arc (MIG) Welding**

**3 Credits**

This course is designed to provide the students with a thorough technical understanding of welding safety, gas metal arc fundamentals, gas metal arc equipment adjustment, metal transfer and shielding gases. It also provides training to develop the manual skill necessary to make quality gas metal arc welds in all positions on mild steel.

### **WLD 208 Gas Tungsten Arc (TIG) Welding**

**3 Credits**

The student is provided with thorough technical understanding of the gas tungsten arc welding fundamentals, arc characteristics, and welding safety. Training to develop the manual skill necessary to make quality gas tungsten arc welds in all positions on mild steel, stainless steel, and aluminum is included.

### **WLD 209 Welding Certification**

**3 Credits**

This course is designed for the student who has advanced shielded metal-arc welding skills. The course will concentrate on preparing the student for A.W.S. Certification Test. The lecture will cover certification procedures and qualification, destructive and nondestructive testing methods.

### **WLD 210 Welding Fabrication II**

**3 Credits**

This course provides for practice in hands-on fabrication and the use of related equipment will be taught.

## *Board of Trustees*

William A. Sigman, Chairman  
Clara Thompson, Vice Chairman  
Moses W. Gray, Secretary  
Michael Barth, Jr.  
Harry P. Gowan  
Curtis Miller  
Joseph B. Sheets

## *Administration*

Dr. Meredith L. Carter, Vice President/Chancellor  
Dr. Thomas Cooke, Dean of Instructional Affairs  
Darrell Cousert, Director of Student Affairs  
Dee Hollowell, CPA, Director of Administration & Finance  
Jane Howard, CFRE, Director of Marketing  
and Development  
Joan Roe, Director of Employee Relations  
Rex Ward, Director of Business and Industrial Training

## *Full-Time Faculty*

### *Division of Business and Technology*

*Duane Alfrey*  
Senior Instructor (Welding Technology). Certification:  
American Welding Society, Certified Senior Industrial  
Technologist - NAIT.

*Susan Parker-Altman*  
Instructor (Chairperson, Paralegal Technology). J.D.,  
University of Louisville School of Law; M.A., Eastern  
Kentucky University; B.A., Eastern Kentucky University.

*Margaret Baumer*  
Instructor (Administrative Office Technology). M.S., Indiana  
University; B.S., University of Cincinnati.

*Jimmie Beeler*  
Master Instructor (Business/Management). M.S., Butler  
University; A.B., Indiana University.

*Gregory A. Bernhard*  
Instructor (Automotive Service Technology). B.S., Purdue  
University; NOCTI, A.S.E., Certification.

*Tom Bolinger*  
Instructor (Business Management and Economics). M.B.A.,  
Indiana University; B.A., Butler University.

*Huey Calvin*  
Senior Instructor (Welding Technology). Certification  
NOTCI (National Occupational Testing Competency  
Institute), American Welding Society and Certified Senior  
Industrial Technologist - NAIT.

*Bernadette Cinkoske*  
Senior Instructor (Computer Information Systems  
Technologies). B.A., Indiana University.

*Conrad Cortellini*  
Instructor (Design Technology). B.F.A., Herron School of  
Art; License in Architecture.

*Michael DeBourbon*  
Master Instructor (Assistant Division Chairperson, Business  
and Technology Division). M.S., Indiana University; B.S.,  
Southern Illinois University.

*Marvin Daugherty*  
Master Instructor (Chairperson Computer Information  
Systems Technology). M.S., Indiana State University; B.S.,  
Martin University; A.A.S., Ivy Tech State College; NOCIT  
Certification.

*Ronald Finney*

Instructor (Chairperson, Transportation Service Technology). B.S., Indiana University; ASE - Master Certified Technician; and Certified Senior Industrial Technologist - NAIT.

*William T. Flanigan*

Instructor (Chairperson, Industrial Technologies). M.S., Indiana Wesleyan University; B.S., Tri-State University, and Certified Senior Industrial Technologist - NAIT.

*Harry E. Gray*

Instructor (Accounting Technology). B.S., Butler University; Indiana CPA License.

*William L. Greathouse*

Senior Instructor (Chairperson, Hospitality Administration-Hotel/Restaurant Management). M.S.M., Indiana Wesleyan University; B.S., Purdue University; A.A.S., Purdue University; Certification Rooms Division Executive, Food and Beverage Executive, and Hotel Administration.

*Michael Hall*

Instructor (Chairperson, Automated Manufacturing Technology). M.S., Purdue University; B.S., Purdue University; Licensed Professional Engineer; Certified Netware Instructor.

*Joanna Head*

Senior Instructor (Administrative Office Technology). M.S., Butler University; B.S., Butler University.

*Krista Hollenberg*

Instructor (Paralegal Technology). J.D., Indiana University; M.A., Indiana University; B.A., Manchester College.

*Larry E. Hoshins*

Instructor (Chairperson, Public Safety). B.S., Southern Illinois University; A.A.S., Indiana Vocational Technical College; Master Firefighter in Tactics, Management Arson Investigations, Fire Prevention, Aircraft Rescue, and Fire Protection Engineering and Driver/Operator.

*James W. Irwin*

Instructor (Heating, Air Conditioning and Refrigeration Technology). A.A.S., Indiana Vocational Technical College.

*Vincent Kinkade*

Instructor (Chairperson, Culinary Arts). B.A., Hanover College; A.A.S., Indiana Vocational Technical College; A.O.S., New England Culinary Institute.

*Stephen Kuchler*

Senior Instructor (Electronics Technology). M.S., Indiana University; B.S., Purdue University; A.A.S., Purdue University; Certified Senior Industrial Technologist (NAIT).

*Gregory Leigh*

Instructor (Computer Information Systems Technology). M.S., Indiana University; B.S., Indiana University.

*Debra Leverette*

Instructor (Chairperson, Administrative Office Technology). M.S., Indiana University; B.S., Ball State University.

*Ray Nealson*

Instructor (Assistant Chairperson, Business and Technology Division). M.M.S., Indiana Wesleyan University; B.S., St. Lawrence University.

*Dan Niebauer*

Instructor (Automotive Service Technology -GM ASEP). A.S.E., Certified Technician.

*Michael P. O'Haver*

Instructor (Automotive Service Technology -GM ASEP). A.S.E., Certified Technician.

*James Pettit*

Instructor (Heating, Air Conditioning and Refrigeration Technology); B.S., Martin University.

*Jereld Reeder*

Instructor (Chairperson, Electronics Technology). M.S.E.E., Purdue University; B.S.E.E., University of Iowa.

*Alan Rowland*

Senior Instructor (Computer Information Systems Technology). M.S., Ball State University; B.S., Ball State University; Certified Novell Instructor, NEAP Manager.

*Linda L. Scott*

Master Instructor (Accounting Technology Chairperson). M.A., Ball State University; B.S., Ball State University; A.A.S., Ball State University.

*Owen Lee Sensenbrenner*

Instructor (Industrial Maintenance Specialty). M.S., Indiana State University; B.S., Indiana State University; Accredited Fluid Power Instructor - FPS; Certified Senior Industrial Technologist - NAIT.

*Stephen Sharon*

Instructor (Industrial Maintenance). M.S., Industrial Engineering, Iowa State University; B.S., Purdue University; Accredited Fluid Power Instructor - FPS; Certified Senior Industrial Technologist - NAIT.

*Leslie Philip Simpson*

Instructor (Electronics Technology). J.D.; Indiana University; B.A. - BOG., Eastern Illinois University; Certified Senior Industrial Technologist (NAIT).

*Darrel S. Sparzo*

Instructor (Computer Information Systems Technology). M.A., Ball State University, B.A., Ball State University.

*Dr. Eugene Spiess*

Master Instructor (Computer Information Systems Technology). Ed.D., Nova University; M.A., East Tennessee State University; B.S., Tiffin University.

*Deanna S. Timmons*

Master Instructor (Divisional Chairperson, Business and Technology Division). M.S., Butler University; B.S., University of Indianapolis .

*Tom Trusty*

Instructor (Design Technology). B.S., Purdue University; AutoDesk Certified Instructor.

*David Woolums*

Instructor (Culinary Arts). A.S., Vincennes university; A.O.S., Culinary Institute of American; Certified Co-Chair of Jr. Chapter of American Culinary Federation.

*Michael Wallace*

Instructor (Heating, Air Conditioning, and Refrigeration Technology). B.A., Marian College.

*Kenton D. Wright*

Instructor (Program Coordinator, Graphics Training Center). B.S.M.E., Purdue University

*Robert Wurtz*

Instructor (Design Technology). B.S., Purdue University.

### *Division of Health and Human Services*

*Diana Bennett*

Senior Instructor (Assistant Division Chair, Health and Human Services Technology). M.A., DePauw University; B.S.N., DePauw University.

*Carol Bodie*

Instructor (Practical Nursing). B.S., St. Mary - of - the - Woods; Diploma in Nursing from St. Anthony's School of Nursing.

*Kandie Belote*

Instructor (Practical Nursing). BSN, Grand Valley State College.

*Denise Busch*

Instructor (Associate of Science in Nursing). M.S.N., Indiana University; B.S.N., University of Louisville; A.D.N., Moorehead State University; LPN, Jefferson County School of Practical Nursing.

*Cheryl Clarkson*

Instructor (Practical Nursing). M.S.N., Ball State University; B.S.N., Indiana University.

*Margaret Darnell*

Senior Instructor (Human Services). Doctoral Candidate, Ball State University; M.S., Indiana University - Indianapolis; B.A., Marian College.

*Barbara Deady*

Master Instructor (Program Chairperson, Practical Nursing). M.S.Ed., Indiana University; B.S., Indiana State University.

*Debra J. Drake*

Senior Instructor (Associate of Science in Nursing). M.S.N., Bradley University; B.S.N., Olivet Nazarene University.

*Margaret Drown*

Instructor and Clinical Coordinator (Radiologic Technology). M.S., Purdue University; B.S., Indiana University, A.S., Indiana University; R.T., R, ARRT.

*Maureen Gohde*

Instructor (Practical Nursing). B.S.N., Michigan State University.

*Wanda Haver*

Instructor (Chairperson, Surgical Technology); B.S., Martin University; CST.

*Ann Hill*

Instructor (Practical Nursing). M.S.Ed., Indiana University; B.S.N., St. Louis University.

*Teresa Jablonski-Polk*

Senior Instructor (Chairperson, Human Services). M.S.W., Washington University; B.A., University of Kentucky.

*Martha Judson*

Instructor (Practical Nursing). B.S.N., Indiana State University; A.D.N., Indiana State University.

*Kay Kavanagh*

Master Instructor (Radiologic Technology). M.S., Indiana University; B.A., Marian College; R.T., R, ARRT.

*Janet Kramer*

Senior Instructor (Chairperson , Associate Degree Nursing). M.S.N., University of Akron; B.S.N., Ursuline College.

*Geneva Lamm*

Instructor (Practical Nursing). B.S.N., Indiana University; A.S.N., Indiana University; L.P.N., Indianapolis School of Practical Nursing.

*Kathleen Lee*

Senior Instructor (Chairperson, Respiratory Care). M.S., Indiana University; B.S., Muskingum College; A.S., Indiana University; RRT, RCP

*Ann Loureiro*

Instructor (Associate Science in Nursing). M.A.N., Ball State University; B.S.N., Indiana University.

*Dr. Peter Magnant*

Master Instructor (Divisional Chairperson, Health and Human Services Technologies). Ed.D., Indiana University; M.S., Indiana University; B.A., St. Mary's College; B.S., Indiana University; A.A., Nursing, Indiana University.

*Mary Meeker*

Instructor (Associate Degree Nursing) M.S., Ball State University; B.S.N., Ball State University; A.S.N., University of Indianapolis; LPN, Indianapolis Public Schools, School of Practical Nursing.

*Beverly Parham*

Master Instructor (Practical Nursing). M.S., Indiana University; B.S., Oklahoma State University; A.S.N., University of Indianapolis.

*Anne Realey*

Instructor (Practical Nursing). R.N., - Diploma; B.S.N., Indiana University.

*Linda Reed*

Senior Instructor (Chairperson, Medical Assistant). C.M.A., M.S., Indiana University; B.S. and B.A., Indiana University; Diploma, Marion County General Hospital School of Nursing.

*Mary Ann Reklau*

Instructor (Associate of Science in Nursing). M.S.N., Indiana University; B.S.N., Indiana University; A.S.N., Staten Island Community College.

*Marcus Stowe*

Instructor (Respiratory Care). B.S., St. Francis University; A.S., Indiana University; RRT, RCP.

*Sharon Sullivan*

Senior Instructor (Chairperson, Child Development). M.A., Ball State University; B.S., Western College.

*H. Jeffrey Turner*

Instructor (Medical Assisting). M.S., Indiana Wesleyan University; B.S., Western Michigan University; National Registered Emergency Medical Technician - Paramedic Level.

*Christy Troxell*

Instructor (Program Chairperson, Occupational Therapy Assisting). M.A., Rhode Island College; B.S., University of Illinois.

*Karen Tyler*

Instructor (Associate of Science in Nursing). M.S.N., Indiana University; B.S.N., Indiana University.

*Willie Whitfield*

Instructor (Human Services). M.S., Alabama A & M University; B.A., Alabama A & M University.

*Miles Wyatt*

Instructor (Chairperson, Radiologic Technology). B.S., Indiana University; A.S., Indiana University; R.T., R, ARRT.

*Division of General Education and Support Services*

*Dr. Moges Bizuneh*

Instructor (Anatomy/Physiology). Ph.D., Anatomy, Indiana University; M.S., Biology, Cornell University; B.S. Public Health, Haile Sallassie University.

*Connie Bolinger*

Senior Instructor (Coordinator, Mathematics/Science). M.A.T., Mathematics, Purdue University; B.A., DePauw University.

*W. Michael Clippinger*

Master Instructor (Division Chairperson, General Education and Support Services). M.A., Indiana University; Certified Specialist in Developmental Education, Appalachian State University; B.A., Indiana University.

*Jane Dalzell*

Instructor (Communications). M.S., Butler University; B.A., University of Indianapolis (formerly Indiana Central University).

*Dr. Robert Dunkle*

Instructor (Social Sciences). Ph.D., Anthropology, Purdue University; MS., Sociology, Purdue University; B.A., Psychology, Parsons College.

*Michael Gorsline*

Senior Instructor (Mathematics). M.A., Ball State University; B.A., Indiana University -South Bend.

*Marilyn Hamilton*

Instructor (Mathematics). M.S., Butler University; B.S., Purdue University.

*Derrick Harding*

Instructor (ESL/Development/English). M.A., Indiana University; B.A., College of Wooster, CESOL Certification, Indiana University.

*Rebecca Hiday*

Instructor (Resource Center). M.S., Indiana University-Indianapolis; B.S., Ball State University.

*Dr. Ronald Hollowell*

Instructor (Coordinator, Communications/Social Science). Ed.D., Indiana University; M.A., Indiana University; B.S., University of Indianapolis (formerly Indiana Central College).

*Robert Keck*

Senior Instructor (Anatomy/Physiology/Chemistry). M.S., Indiana State (Science Ed.); M.S., College of St. Francis Health Service Adm.; B.S., Southern Indiana.

*Kenneth King*

Master Instructor (Coordinator, Tech Prep; Faculty, Math/Science). M.S., Indiana University; A.B., Indiana University; Certificate in Meteorology, St. Louis University .

*Ali Lotfi*

Instructor (Coordinator, Student Academic Support Services). M.S., Indiana University; B.A., Tehran University.

*David E. Miller*

Master Instructor (Mathematics and Electronics Technology). M.S., Indiana State University; B.S., Purdue University.

*Susan Miller*

Instructor (Developmental Reading). M.S., Indiana University; B.S., Indiana University.

*Todd Murphy*

Instructor (Developmental Sciences). M.S., Veterinary Science, University of Kentucky; B.S., Microbiology, University of Kentucky.

*J. Stephen Noe*

Instructor (Science). M.S., Zoology, Illinois State University; B.S., Biological Sciences, University of Notre Dame.

*Susan Pearson*

Instructor/Counselor (Developmental Reading). M.A., University of Michigan; B.A., Indiana University.

*Kathleen Rice*

Instructor (Developmental Writing). M.S., Indiana University - Purdue University at Indianapolis; B.A., Indiana University - Purdue University at Indianapolis

*Lucia Rusu*

Instructor (Mathematics/Physics). M.S., Purdue University; B.S., University Babes - Bolyai, Romania.

*Simin Shirzadi*

Instructor (Social Science). Ed.S., Western Michigan University; M.A., Western Michigan University; B.A., Western Michigan University.

*Leroy Snare*

Instructor (Mathematics/Physics). M.S., Massachusetts Institute Technology, Cambridge, M.S., University of Missouri, Columbia, B.A., University of Missouri, Kansas City.

*Janet Strandjord*

Instructor (Developmental Science/Mathematics). M.S., Indiana University; B.A., University of Illinois.

*Margaret Thomas*

Instructor (Developmental Reading/Mathematics). B.S., Winthrop College.

*Christopher Wood*

Master Instructor (Assistant Division Chair, General Education and Support Services). M.A., Indiana University; B.A., Indiana University.



One West 26th Street  
P.O. Box 1763  
Indianapolis, Indiana 46206-1763